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ABSTRACT

This paper is the result of a request from the European Commission Directorate General XXII for an in-depth study into the vocational education and training system in one of the countries of the New Independent States of Mongolia. This document examines those parts of the Kyrgyz education system with direct links to Vocational Education and Training (VET). The following topics are discussed: Kyrgyzstan's geography, climate, infrastructure, population, culture, religions, economy, labor market, and education system; initial vocational training and the vocational-technical school (VTS) system (the VTS system's organization; tasks and responsibilities of the Directorate for Vocational and Technical Training; the VTS system's financing, staffing, students, curricula, methodological tools, technical equipment, teaching tools, and physical premises; international cooperation in the area of initial vocational training); the system of special secondary education (the system's organization, contents, financing, staffing, and students); retraining of unemployed people in Kyrgyzstan's VTS system; main problems of VET in Kyrgyzstan (international coordination, general upgrading of the state VET system; establishing of relevant links between VET, the Employment Service, and the labor market; financing); and recommendations. Appendixes constituting approximately 40% of this document contain the following: overview of an information system being developed for the Department for Training of Workers and Entrepreneurs; list of existing vocational training centers under the Ministry of Labor; and list of institutions by the Ministry of Education providing technical and/or VET at the secondary level or through special secondary education. (MN)

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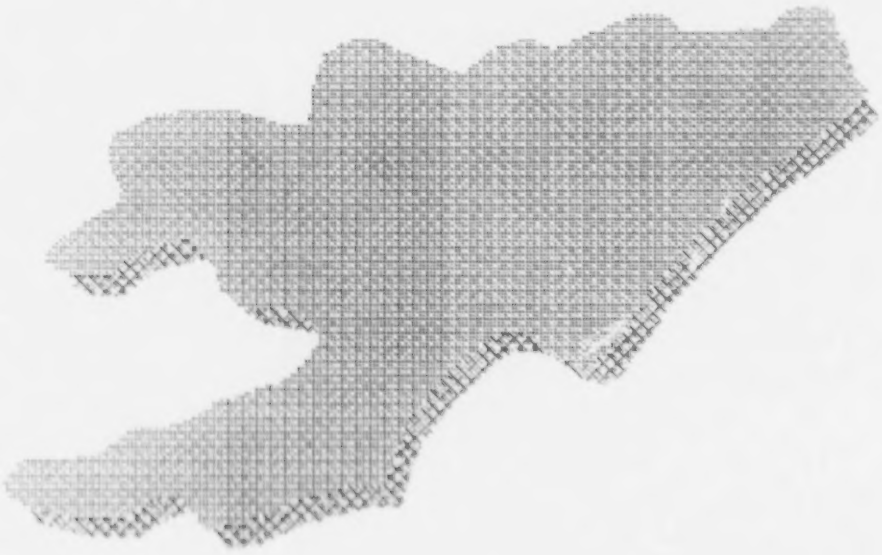
European Training Foundation

VOCATIONAL EDUCATION AND TRAINING IN KYRGYZSTAN

Managing Educational Reforms in an Economy in Transition



Prepared for the European Training Foundation by

Bertil Oskarsson and Corinna Muscheidt

Turin, Italy, October 1996

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Foreword

Vocational education and training in Kyrgyzstan

This paper is the result of a request from the European Commission Directorate General XXII for an in-depth study into the vocational education and training system in one of the countries of the New Independent States and Mongolia.

The paper focuses on those parts of the Kyrgyz education system which have direct links to vocational education and training and hence to developments and changes in the labour market. These parts are mainly:

- The system of initial vocational training (the PTU system)
- The system of special secondary institutions
- Retraining of the unemployed.

There are still examples of initial vocational training in some of the secondary schools - an heritage from the Soviet education system. It can also be argued that the higher education system, totally or partly, is to be seen as part of the VET system. This will, apart from a brief overview of the entire education system, however not be considered here.

The problem of upgrading the skills of employees is not specifically discussed, for the simple reason that very little is known about the extension and content of such training at present. It is clear, though, that the vast majority of employers is not prepared at present to spend much - or any - means on upgrading of staff. At the same time the state budget does not foresee any subsidies or benefits for employers, in order to support upgrading activities. Hence, it can be suspected that the upgrading activities today are at a very low level.

At the end of the paper a chapter with a more thorough discussion of the main problems of the VET field, outlines of possible ways to address these problems, and present development trends, is included.

For a general overview of the education system, the ADB education and master plan for the Kyrgyz Republic (Feb. 1996), and the Presidential Education Program "BILIM" (March 1996) are recommended.

I. General Introduction to Kyrgyzstan

Geography, climate and infrastructure

Kyrgyzstan (formerly known as Kirgizia), is a small, landlocked state in Central Asia. The country covers an area of 198,500 km² and has common borders with Kazakhstan in the north, China in the east, Tajikistan in the south and Uzbekistan in the north-west. Because of its mountainous landscape, and its great natural beauty, Kyrgyzstan is called the "Switzerland of Central Asia". Two thirds of its territory lie above 3,000m, dominated by the Pamir Alay range in the south-west and the Tien Shan range in the north-east, where the Peak Pobeda is located, the second highest mountain of the former Soviet Union with 7439 m height.

Most of the mountain region is permanently covered with ice and snow and there are many glaciers. Among the most populated valleys is the Fergana valley, separated by the border with Uzbekistan. Other lowland valleys include the Chu and Talas valleys near the northern border to Kazakhstan. The most important rivers are the Talas, the Naryn which flows through the central region and eventually joins the Syr Daria and the Chu, which forms part of the northern border with Kazakhstan. The Issyk-Kul ("Hot Lake") is the main body of water in the country. The worlds second-largest crater lake (6200m²), it is one of the most beautiful seas of Central Asia, surrounded by mountains of 4,000m.

The climate is dry continental to polar in high Tien Shan, subtropical in the southern Fergana valley and temperate in the northern foothill zone. In the valleys the mean July temperature is 28°, whereas in January it falls to an average of -18°C. Annual precipitation ranges from 750-1,000 mm in the Fergana mountains to 100-500 mm in the settled valleys.

Transport nets are poorly developed inside the country. Owing to the mountainous terrain railroads total only 370 km in common carriage (excluding industrial track). Main railways lead from Bishkek to Issyk-Kul, to Almaty and Tashkent. In the Soviet era Kyrgyzstan acquired quite a good road network (33.300 km of highways, 22.600 km of them paved and gravelled) most of them, however, are with neighbouring Uzbekistan and Kazakhstan. During winter the north and south of the country are divided as the roads are closed for climatic reasons. Out of the 54 airports, four are of major size and only 14 have paved runways. The main international airport is near Bishkek, with links with cities in the Russian Federation and in Central Asia.

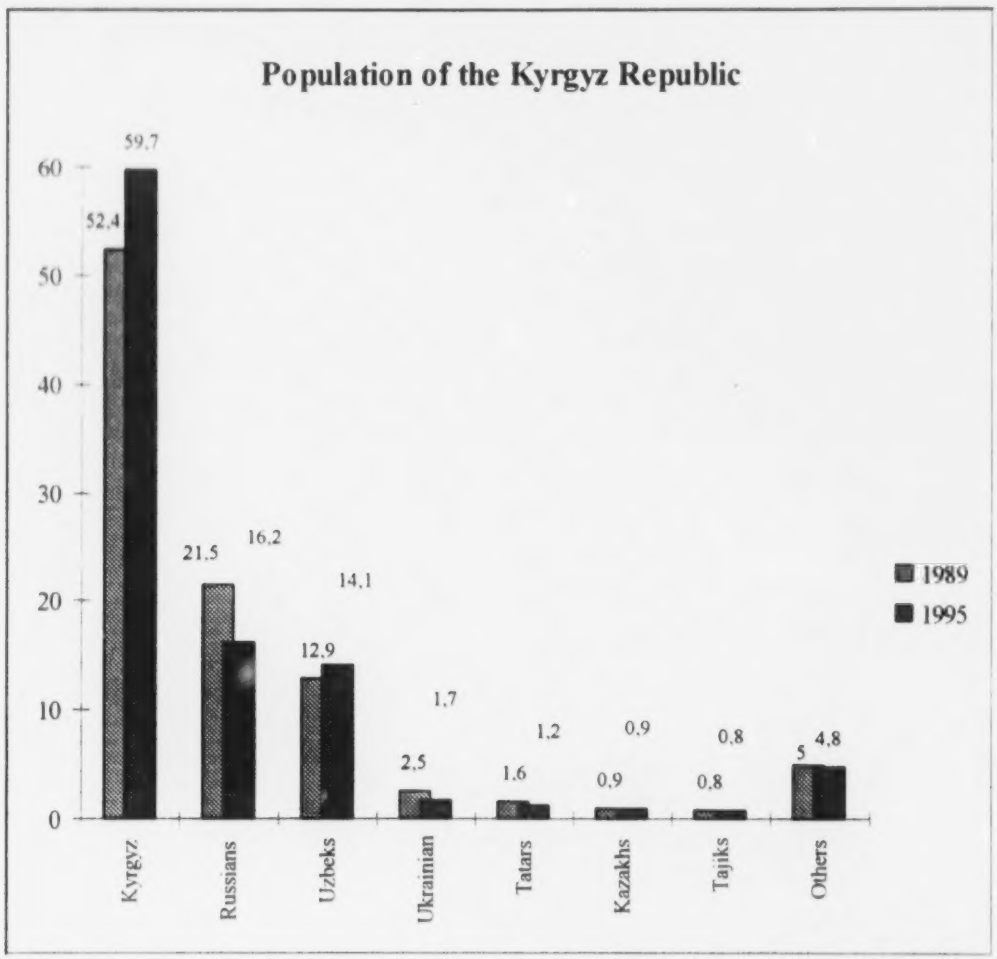
Kyrgyzstan is an overall agricultural country with a relatively low level of urbanisation. This is well reflected by the fact that only 36% of the population lives in towns and urban settlements (21 towns, 29 urban settlements) The two major towns are the capital, Bishkek in the Chu valley, (known as Frunze in the Soviet era) and Osh in the fertile valley of Fergana. Other important regional centres are Karakol, Kyzyl-Kiya, Jalal-Abad and Naryn.

Natural resources include coal, natural gas, oil and naphthalene; rare earth metals like mercury, bismuth, gold, and uranium; lead, zinc, hydroelectric power.

Due to its comparatively low level of industrialisation and its distance from the Aral sea, Kyrgyzstan is less affected by environmental problems, except for the Fergana valley where cotton-monocultures based on artificial irrigation and over dosage of pesticides and fertilisers lead to high child mortality.

Population, cultural and religious background

Next to Kazakhstan, Kyrgyzstan was in 1989 the country with the lowest native population percentage. The last census, undertaken in 1995 showed however an increase of the Kyrgyz from 52,4% to 59,7%.



Since independence these figures have changed radically, due to massive emigration of Germans and mainly Russians, many of the latter being high qualified. In 1990, before the conflict in the Fergana valley, nearly three times as many Russians left the country as in previous years and a quarter of the ethnic Germans emigrated. In 1996 it was stated that more than 100,000 Russians had left the country.

Kyrgyz, a member of the Southern Turkic group, has become the official language of the country, but Russian has been maintained as a second language, with equality to Kyrgyz, which in comparison to other Central Asian states is unique. Like national languages in other Central Asian and Caucasian countries, Kyrgyz language and script have undergone major changes during this century. The Arabic script, in use till

1928, was replaced by a Latin script till 1941, when Cyrillic was introduced. In 1991 it was proposed to reintroduce Latin script, a change which is not likely to take place until end of the decade, if at all.

The major religion of the country is Islam of the Hannefi school, the Kyrgyz, Tajiks and Uzbeks being Sunni Muslims. But as Islam was introduced only in the 16th century through Sufi orders from Kokand, islamisation has been less deep in the north and east where shamanistic-totemistic culture is still alive. The Southern part of the Republic and Fergana, however, are religious centres in Central Asia: Osh and Naryn dispose of the most vast net of pilgrim sites. Right in their centre near Osh lies the Taht-i Süleyman (Süleyman's throne), a high limestone rock, where the prophet is said to have prayed.

Kyrgyz culture gave birth to probably the largest epic work in world literature, created in the course of several centuries. The main theme of the epic „Manas", is the struggle of the Kyrgyz against the Oirat enemy. It is handed down by word of mouth, and the manastshi are men of high standing in Kyrgyz society.

The Soviet period also had its authentic Kyrgyz literature, partly in the Russian language. The most renowned novelists were Aaly Tokombaev and Chingiz Aitmatov (Jamilya, Farewell to Gülsary).

History of Kyrgyzstan

The ancestors of the Kyrgyz were probably settled on the upper reaches of the Yenisey, (near the Tuva region of the Russian Federation) and moved, driven by the rise of the Mongol Empire in the 13th century, to the Central Asian Region. The Kyrgyz themselves emerged as a distinct ethnic group by the 15th century and are believed to be of mixed Mongol, Turkic and Kypchak descent.

During the 16th and 17th centuries the Kyrgyz remained dominated by eastern Turkic tribes, till the region became ruled by the Oirot Mongols. With the defeat of the latter in 1758 by the Manchous, the Chinese empire acquired nominal sovereignty of the land, but did not interfere with the independent nomadic tribes' lifestyle. In 1863 the northern Kyrgyz acknowledged the sovereignty of the Russian Tsar, and with the defeat of the Empire of Kokand the southern Kyrgyz became Russian subjects in 1866. After formal incorporation in the Empire in 1876, various revolts against the tsarist authority led to the first waves of migration of Kyrgyz to the Pamir and Afghanistan.

The suppression of the 1916 rebellion in Central Asia led to a major migration of 150,000 Kyrgyz to China. Following the October revolution of 1917, there was a period of civil war involving anti-Bolshevik forces (including the Russian 'White Army' and local armed groups of Muslim and nationalist insurgents) till the establishment of Soviet power in 1919 from Tashkent.

From 1918 the country was nominally part of the Turkestan Autonomous Soviet Socialist Republic until in 1924 the Kara-Kyrgyz Autonomous Oblast was created, renamed in 1925 the Kyrgyz Autonomous Oblast, and the Kyrgyz ASSR in February 1926.

The Soviet policy in the early twentieth century was openly colonialist and favoured the settlement of Russian migrants at the expense of the Kyrgyz peasants and nomads. Also, most of the administration was Russian. A more conciliatory policy towards the local population, mainly the land reforms of 1921 and 1927, partly re-established the rights of

the Kyrgyz. The second programme of land reform (1927-1928), however, aiming at the resettlement of the nomadic Kyrgyz, constituted a major cut in the life of the local population. The collectivisation led finally to the total disappearance of nomadism. Local revolt against the Soviet policy expressed itself among others by the peasants deliberately slaughtering all of their cattle before leaving the country, which nearly led to total destruction of the country's economy, which was mainly based on cattle breeding.

Cultural, educational and social life, however, improved considerably during the 1920s, not least through the establishment of a standard literary language and the improvement of literacy.

Opposition against the new political system came also from local cadres of the Kyrgyz Communist Party, till the „great terror" of the Stalinist era put an end to Kyrgyz resistance. This resulted in further mass emigration to Afghanistan and China. By 1936 industrialisation and further waves of migration from the European centres of the Soviet Union to the Republic had reduced the percentage native Kyrgyz people in the Republic to 15%.

With the establishment of the Kyrgyz Soviet Socialist Republic on December 5, 1936, the country became a full Union Republic of the USSR. In spite of the purging of the political and administrative apparatus of its Kyrgyz members, many aspects of Kyrgyz culture were maintained. In fact during the 1930s and the Brezhnev area, slowly a specific Kyrgyz national identity began to replace the former feeling of an ethnic entity with Central Asia. Also structures and the struggle for power within the apparatus continued to show traditional features, running more along old lines of clans and tribes than in any other of the Central Asian states.

During the Brezhnev era, the reign of Turdakun Usubaliev (1961-1985) as First Secretary left its mark on the country. Local elite now made up for nearly 75% of the high functionaries. Though the local elite proved to be loyal towards Moscow, Kyrgyz national consciousness was able to articulate itself more openly than before. The further establishment of local training, education and cultural institutions as well as the birth of a new local intelligentsia led to further moulding of a national entity.

It was mainly friction between the local population and the strong Russian presence, further immigration leading to an increase of cultural and linguistic russification, as well as total economic dependence upon Moscow, which gave more strength to the development of a Kyrgyz national identity. This feeling of belonging to a Kyrgyz nationality predominated sub-national links like tribes, clans and familial links.

During the de-Stalinisation period, national sentiments were expressed more freely, not least in the Komsomol newspaper „Leninchil Jash" in the Kyrgyz language. During this period, the traditional life of Kyrgyz nomads became one of the main themes of Kyrgyz literature. Kyrgyzstan, like the other Central Asian Republics gained more independence from the central power. By the end of the Usubaliev era, Moscow tried to regain greater control over Central Asia and Kyrgyzstan. A new purge aiming at strengthening the Russian influence, affected nearly 2,600 members of the KCP, most of them of Kyrgyz background.

When Absamat Masaliev replaced Usubaliev as first Secretary of the KCP in November 1985, glasnost and perestroika were also introduced in Kyrgyzstan. But the replacement of the first Secretary and the growth of the reform movements went hand in hand with the replacement of old local cadres. As this meant further russification of the elite, the reform movement provoked more resistance, than acceptance from the

population. Compared to other Central Asian republics, a relative freedom of press flourished in the following years. Cultural, social, economic and ecological problems like child labour, women's suicides, the housing crisis and the cotton-monoculture, were openly addressed. In June 1987 for instance the national writers' union criticised the neglect of Kyrgyz culture, language and history, promoting the language question as the key theme of the rebirth of the nation.

At the same time different interest groups established themselves, some of which soon developed a wider political role as they focused more on actual problems of the population like the acute housing crisis in Osh and other parts of the country or the pollution of the Issyk-Kul. The conservative leadership tried with little success to stop the groups gaining influence and power: during the following years they became more and more a kind of opposition to the KCP, and the starting point for the establishment of other political parties.

Kyrgyzstan in the 90s

The elections for the Supreme Soviet of Kyrgyzstan in February 1990 were still conducted in traditional Soviet style and the communists won most of the seats unopposed. In April 1990 Masaliev was elected as the Chairman of the Supreme Soviet, a newly instituted office and it could have been taken for granted that he would win the presidential elections in October 1990. The merger of the considerable democratic opposition, united as the Kyrgyzstan Democratic Movement, as well as Masaliev's discrediting by the violence in the Fergana valley[1], made him fail to obtain the necessary votes. He was refused permission to be re-nominated and Askar Akayev, the liberal President of the Academy of Sciences was elected to the presidency. In mid-December the Supreme Soviet voted to change the name of the country into Republic of Kyrgyzstan, despite opposition from the KCP and Masaliev.

Finally, in the new constitution of 1993 the country was renamed into the ethnically less neutral "Kyrgyz Republic".

The real era of reform began relatively late in 1991, but led to greater changes than in other Republics. In January 1991, Akayev introduced new government structures by replacing the Council of Ministers by a leaner Cabinet of Ministers and by cutting down the number of Ministers by half. At the same time he appointed a new government, comprising mainly younger politicians, willing to support him in his political plans. A group of specialists on economic issues was appointed to the newly established State Commission on Economic Reform.

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1 The conflict of Osh in the Fergana valley occurred in a zone with typically mixed-ethnic composition: the population in the valley mainly consists of Kyrgyz and Uzbeks. Disputes between both groups over land and housing provision led in June 1990 to the escalation of violence, in which 11 people died and more than 200 were injured. Order was not restored until August and the borders had to be closed between Uzbekistan and Kyrgyzstan.

In 1920 Osh had been incorporated into Kyrgyzstan, though the majority of the population was of Uzbek origin. Urban population consisted still mainly of Uzbek and Russian citizens in the beginning of the eighties, when Kyrgyz from the surrounding country and mountains migrated to the towns. Uzbeks tried to unite against the wave of migration by controlling the distribution of housing, land and work, whereas the Kyrgyz reacted by seizing vacant land and building houses on it. The Uzbeks forming the majority had begun to demand for the establishment of an Uzbek autonomous region, when the conflict arose openly.

In February 1991, the capital (named Frunze after the Red Army commander who had conquered most of Central Asia) was named again Bishkek. Though the country rapidly strengthened its independence, a majority of 87% voted in favour of a "renewed federation" of the USSR in the referendum of March 1991.

Despite strong opposition from the KCP, Akayev continued his programme of political and economic reform. He was also the first and the most outspoken leader in Central Asia to denounce the coup in Moscow in August 20, 1991. He managed successfully to hinder attempts by reactionary communist forces and the security forces to carry out a coup in the Republic and, on August 26, the KCP was dissolved. Though the KCP later on formed again as the Party of Communists (PCK), little political opposition remained which could have hindered the President's pursuit of his ambitious economic reforms and his fight for more independence from Russia. Akayev was then elected President by direct ballot on October 12, 1991 with 95% of votes cast. There was no other candidate nominated.

While strengthening the independence of the country Akayev maintained good relations with the successor states of the USSR. Kyrgyzstan not only joined the Commonwealth of Independent States immediately on December 13, 1991; it also participated in meetings with its Central Asian neighbours, and signed the Treaty of the New Economic Community on October 18, 1991.

During the first years of independence not only the economic transition proved to be difficult; reforms and political changes were often blocked by opposition from the bureaucracy and from parliament, both nationalist and communist forces. Both groups united in parliament during the discussions about the new constitution in 1992 and the future powers of the president. Not only did they favour restrictions on the powers of the president, but also a stronger role of the government in the legislative process.

The constitution that was finally approved on May 5, 1993, provides for a parliamentary form of government, with legislative power vested in a 105-seat assembly, the Jogorku Kenesh. The president however retains considerable authority a position Akayev was able to build upon in the following two years.

The two years until the last elections in December 1995 were marked by a lack of a clear division of power and authority between local power and the government. Also Islamic activities increased, but never rose to a level of serious concern. Anti-reform communists and nationalists, suspicious of the president granting rights to minority groups, were strongly opposed to the presidents policy of trying a multi-ethnic approach in order to prevent further emigration of the mainly Slav elite. The status of Russian as an official language was secured in 1993, and it remains the most used foreign language.

In December 1993 the scandal involving Canadian Seabeco (the brokerage company in charge of establishing contacts with Western businesses, was alleged to be involved in the disappearance of a significant part of the countries gold-reserves) and members of the government, led vice-president Kulov to resign. Deputies demanded a vote of confidence in the government. After the necessary two-thirds of a motion for "no-confidence" were not obtained Akayev chose to dissolve the government. Though he had to continue with a government which had now more members of the KCP, Akayev received a renewed mandate to complete his term of office in January 1994,

with 96,2% of the votes. A renewal of the mandate till the year 2000 was given in December 1995.

After the predictable victory in the referendum held on February 10, 1996 the president has increased his powers at the expense of government and parliament: he now yields most of the executive power. A Security Council comprising the most important members of the government was set up on April 8, 1996. The body can take decisions without consulting parliament or the full cabinet. If the latest developments represent the end of democratisation or if they will be a starting point for a stable political development leading to a democratic Republic remains to be seen. Kyrgyzstan has however proved to be politically and economically stable, in spite of generally difficult conditions.

The Republic has during the years of independence successfully maintained good foreign relations with its neighbouring Central Asian States and Russia, though for instance Uzbekistan has claimed territorial rights to Osh. Tajikistan also claimed the mountainous part of the region, and Kazakhstan has laid claim to parts of Issyk-Kul. Kyrgyzstan however claimed those parts of the Pamir region with a predominantly Kyrgyz population, and parts of Almaty and Taldy-Kurgan in Kazakhstan.

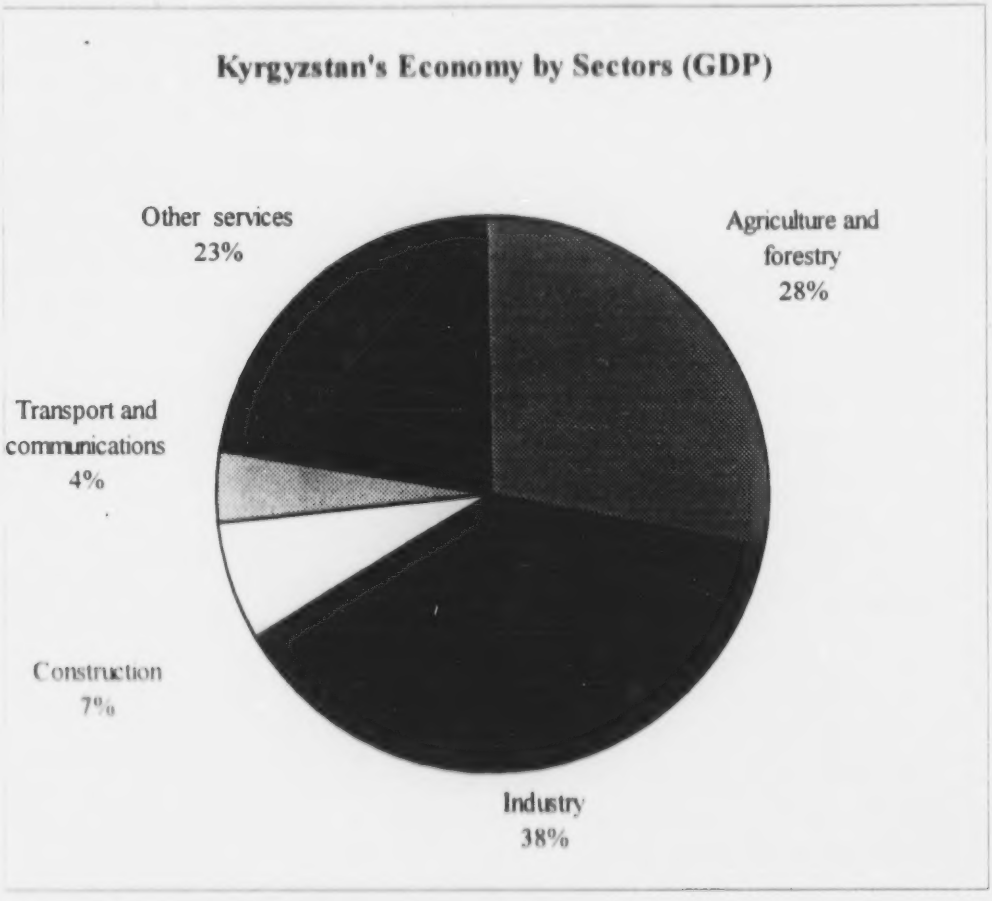
Furthermore the country has been able to develop new prosperous relations with China. Many agreements have been concluded, among others the Trade and Customs Union between Kazakhstan, Belarus, Russia and Kyrgyzstan. They committed themselves to a five year timetable to create a community of integrated states.

The economy

Kyrgyzstan was one of the poorest Republics of the USSR, contributing to only 0.8 % of the Soviet net material product, 1.2% of total agricultural NMP and only 0.6% of the industrial NMP. Exports were up to 98% to other parts of the former Soviet Union, which made the country highly dependable on the COMECON and more vulnerable than others after the dissolution of the USSR. In 1991 Kyrgyzstan's economic performance was worse than in any other former Soviet state except for Armenia, Azerbaijan and Tajikistan. The country had and has potential economic wealth, but is lacking foreign investment.

Kyrgyzstan's economy is dominated by its industrial sector, followed by the agricultural and construction sectors, and the poorly developed services sector.

In 1994 the main sectors had a part in the Gross Domestic Product as follows:



As stated previously, Kyrgyzstan is rich in mineral resources, such as coal, gold, uranium, antimony and other rare metals as well as smaller reserves of natural gas and petroleum. Particularly noticeable are the Kumtor gold mines in the south-east of the country (the seventh-largest deposit in the world). Kyrgyzstan hopes to exploit its natural resources more intensely by trying to attract foreign investment, one of the major obstacles in developing the sector further. It was also intended to establish gold-processing plants in Talas and Kemin to build up the Republic's own gold reserves, but negotiations with foreign investors proved to be more difficult after the scandal concerning the gold reserves in 1991.

Though disposing of its own primary energy sources, Kyrgyzstan was highly dependant on imports of coal and gas from its neighbouring countries. The production of hydroelectric energy by six hydroelectric power stations, however, has since 1994 been large enough for the Republic to export electricity to neighbouring countries, including the People's Republic of China.

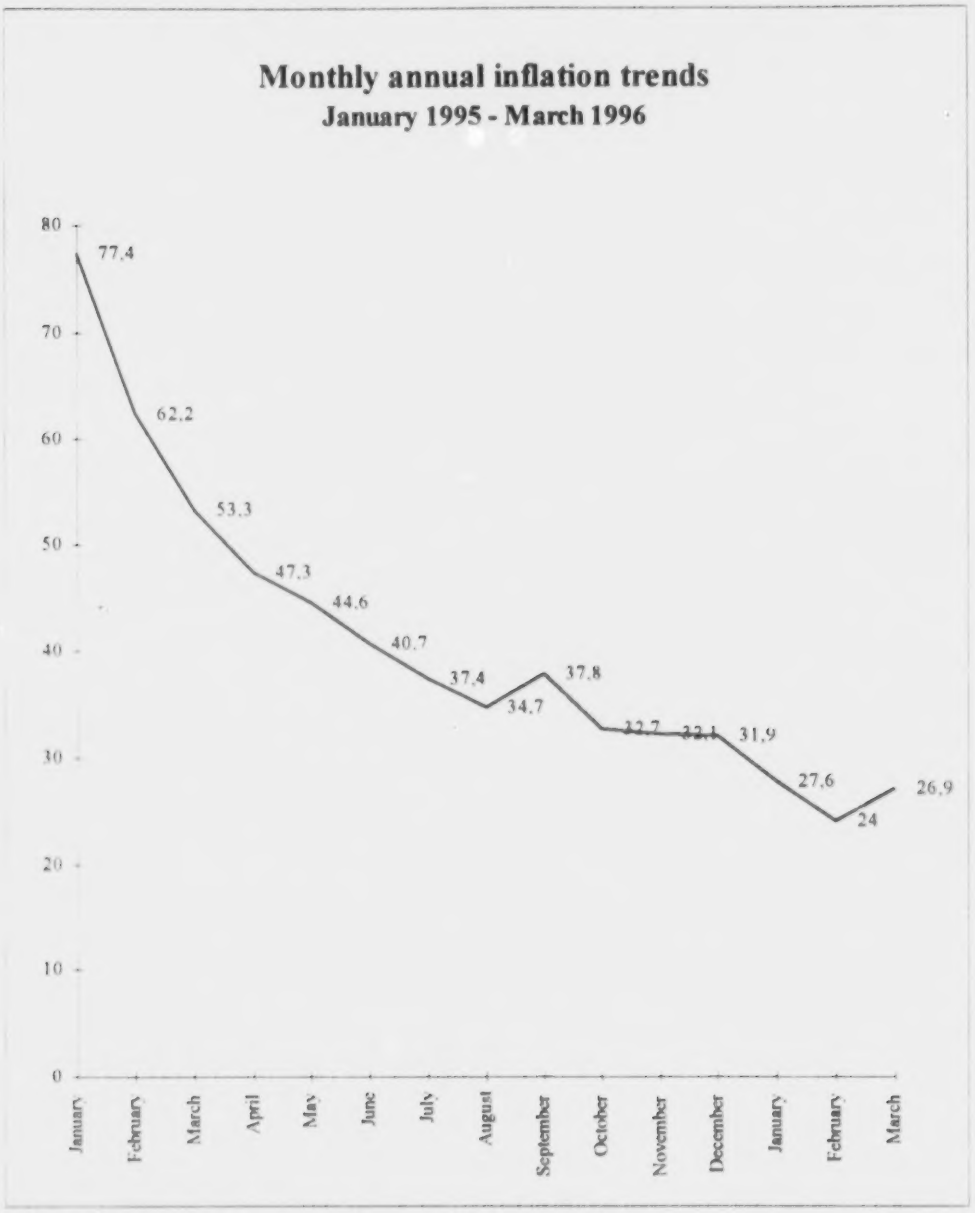
Industry concentrated around Bishkek includes small machinery, textiles, food processing, cement, shoes, sawn logs, steel, refrigerators, furniture, electric motors, gold and rare earth metals. Some 80% of industrial output was accounted for by light industry, food processing and machine building. Light industry based in 125 plants, consisted of textiles (26.2 % of total industrial production in 1991), clothing (8.6%), and leather shoes and fur (2.2%).

The services sector was the least developed sector of all, and most gravely affected by the austerity plans for economic transformation, as most of the activities in this sector were within the government sector. Transport and communications were relatively well developed under the Soviet regime, but suffered from the geographical division of the country between north and south. For instance communications between the cities of Osh and Jalal-Abad tended to be across the territory of Uzbekistan, and the Talas region was more oriented towards the Jambul area of Kazakhstan, than towards Bishkek, because of the mountain barriers. Another area where services could be developed in the future is tourism, as the country has spectacular mountain scenery, glaciers, lakes and pasture lands.

Kyrgyz trade links were mainly with the other Soviet Republics, principal exports were non-ferrous metals and minerals, woollen goods and other agricultural product, electrical energy, some engineering goods and some electronic products. The Republic heavily relied on the other Soviet Republics for petroleum and natural gas, ferrous metals , chemicals, most machinery, wood and paper products, foods like grain and most construction materials. The trade with former Soviet Republics accounted for 66.2% of exports in 1995 up from 63.3% in 1994. Comparable import shares for 1995 and 1994 were 77.3% and 76.1% respectively.

External debt made up 55% of the GDP in 1995 of which 76% was owed to Western creditors, nearly 17% owed to Russia (which recently rescheduled the Republics debts repayment until 2002) and nearly 7% owed to other states of the Commonwealth of Independent Nations.

Price liberalisation began at the beginning of the 1990s, and a second phase started in 1992, which caused price increases by some 19 times compared to the previous year. The rise of inflation was one of the major reasons for Kyrgyzstan becoming one of the first of the Newly Independent States to introduce its own currency, the Som, in March 1993. It has so far established itself as one of the most stable of all the Central Asian currencies. Inflation is now amongst the lowest of all Central Asian states. During the period from January 1995 to March 1996, the annual trends fell from 77.4% to 26.9%.



The Gross Domestic Product can be estimated only roughly: Compared to 1989, 1994 seems to have been the year of lowest GDP, there was a decline of 26.2%. 1995 showed a decline of 6.7%. 1996 however is expected to show a growth of 3.4% in GDP and inflation should slow down by the end of the year to 15-20%. The main reason for the rise in inflation is unexpected increases in food prices.

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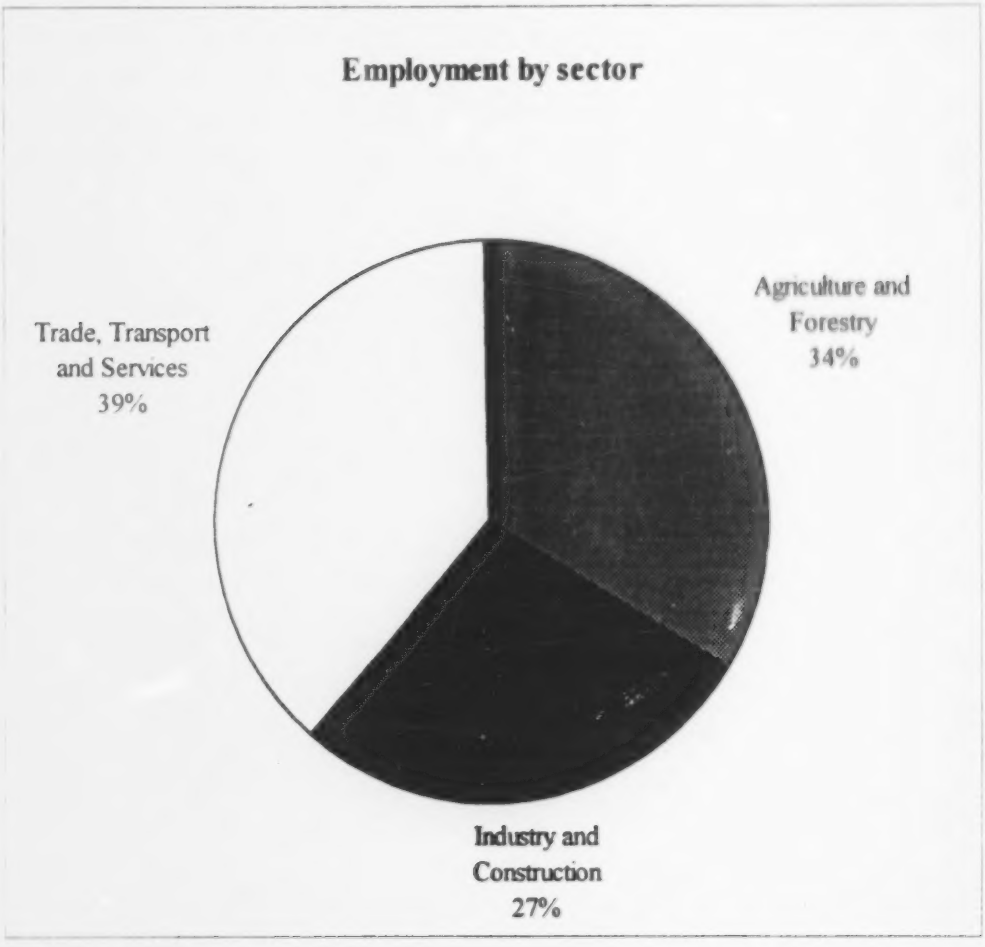
The labour market

In 1995 employment by sector looked like this:



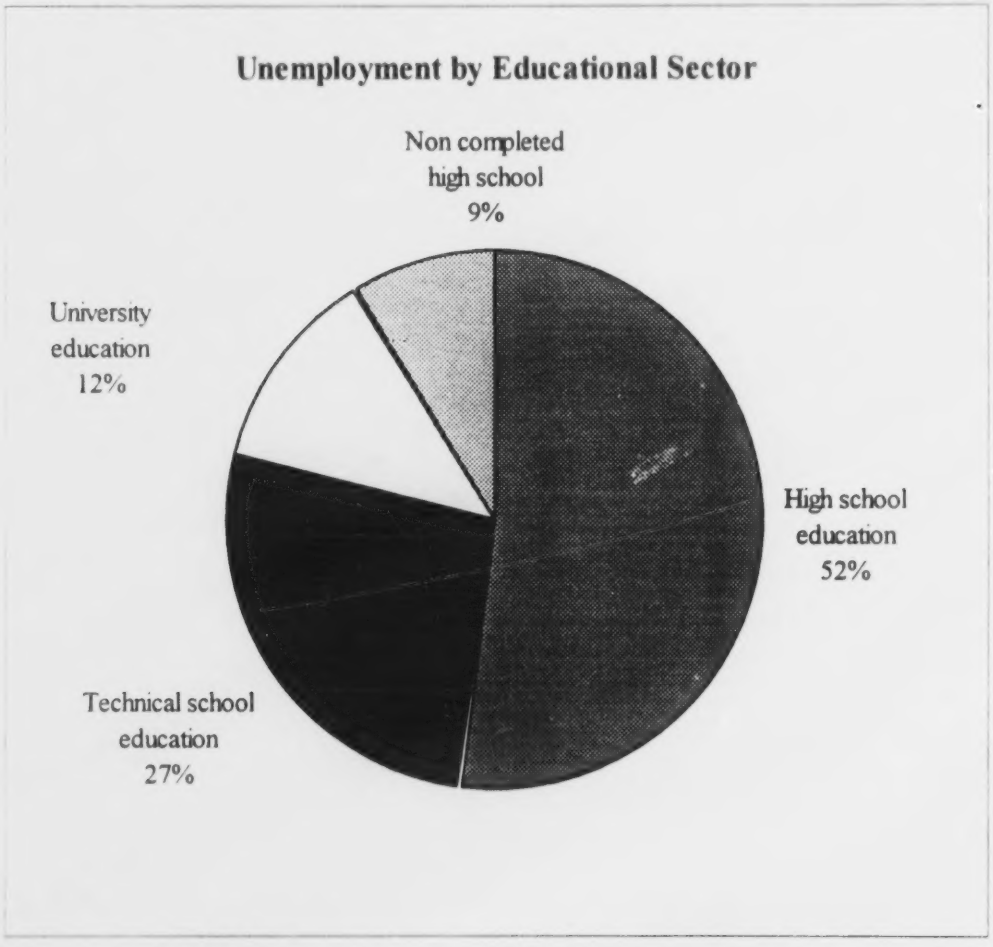
In 1991 two thirds of the work force were employed in state owned enterprises. Out of the active population of Kyrgyzstan (1,700,000 people) 1,641,000 people were employed in the state sector. As stated above, the country's economy is still experiencing the consequences of economic transition, the decrease in trade with other former countries of the USSR, a fall in industrial and agroeconomic production following the programmes of privatisation and liberalisation, and a promising slowdown of the decline in GDP (26.2% in 1994 and 6.7% in 1995).

All these developments have a serious impact on the labour market. Underemployment and unemployment - unknown phenomena in the Soviet era - are becoming a specific feature of the labour market. In 1995 more than 50,000 workers were laid off in the Republic as a whole and one fifth of all industrial enterprises were on short time almost every month, not to mention the fact that many employed people receive their wages on a very irregular basis, if at all. The number of people of either short time work or extended leave without pay is estimated at about 100,000.

In 1994 there was still quite a considerable amount of emigration from the country (approximately 55,000 people in 1994) it decreased to only 19,000 in 1995. 4,5% of all

unemployed took the possibility of early retirement in 1995. On the other hand the labour market increased due to the number of young people who graduated from schools and vocational schools (40% of all unemployed are between the ages of 16 and 29).

In 1995 the rate of unemployment (officially registered unemployed in relation to the officially active population) was nearly four times as high as in 1994, at 2.9%. But the real unemployment rate might be up to 20% according to Western estimates. More than half of the unemployed have passed general secondary schools, around 39% of the unemployed attended universities or technical schools, and 9% have incomplete secondary education.


Unemployment by Educational Sector
Non completed high school 9%
University education 12%
High school education 52%
Technical school education 27%

The growth of unemployment varies from region to region, the highest rates were to be found in the more developed regions and in the big cities (Bishkek 21%, Chui 19%, and Osh 11,5%). Unemployment in rural areas was also growing. Out of the 53% unemployed, 62% were ethnic Kyrgyz, and the level of unemployed women was comparatively high, 59% of all unemployed and 77% of them with children under 14.

Job-placement has become more and more difficult during the last year. The probability to find a job through the employment services has decreased to 10% of all applicants from 24% in the beginning of 1994. The ratio of blue to white collar workers of those placed in new jobs was 3:1. Men were more easily placed than women and the probability to be placed through the services very much depended on the region: whereas in the Chui Oblast every fifth person could be placed, in the Naryn Oblast only one person in 41 was placed.

The education system

Under the Soviet Union an educational system meeting world standards was established on a nation-wide level. One of the major achievements of this system was an almost universal literacy and a percentage of 70% of secondary schools students graduating. In the past, education played a highly important role in Kyrgyz society, which was also reflected by the fact that spending on education formed the largest proportion of public budgetary expenditure of the Republic.

The legal bases for the Kyrgyz education sector are the Constitution of the Republic and the law of education of 1992. Major changes in the system are the curricular reform, increased innovation in pedagogical processes, and the recognition of plurality in the organisation of education and training.

The constitution Art. 32 stipulates the right of access to education and training of all citizens (compulsory basic education being free of charge); and the governments responsibility for the upholding of standards in the public as well as in the private sector; but it also points out that certain fees and other charges may be levied by the state and other educational institutions.

The principal educational objectives based on the legal grounds mentioned above have been specified by the projections of the Ministry of Economics and the presidential programme on State investments in 1995, namely:

- To establish high standard and high quality training institutions
- to provide new study and training programmes for higher secondary and vocational education taking into account the requirements of the labour market
- the promotion of Kyrgyz and other national languages, in particular the strengthening of teaching of particular foreign languages
- the development of an efficient administration and inspection mechanism; and
- the integration of the Kyrgyz educational system into the world system.

The process of education and training policy and planning involves more bodies nowadays than it used to in the past, when the national Ministries of Basic Education, Higher Education and the Ministry of Vocational Training received overall directives by centralised bodies in Moscow. The three ministries merged at the beginning of 1990.

In 1995 the following Ministries and institutions were involved in the process of administering the education system:

- The Ministry of Education and Science (MES), the Directorate for Vocational and Technical Education (DVTT), the Ministry of Economy, and the Ministry of Finance, among other Ministries
- Oblasts and rayon educational authorities
- The Presidential Commission on Education
- legislative bodies in the sphere of education; and
- the Committee for Science, Education, Culture and Social issues of the peoples representation.

The Kyrgyz Education system comprises:

1. Basic Education (being the most important sub-sector of the education system). *Primary education* (grade 1-4) (newly introduced subjects are Kyrgyz, Motherland studies, "ethnic spirit education" and arts) *Basic Education* (grade 5-9) prepares students mainly for the next level of education, but also as preparation for important non-academic occupations*Middle Education* (grade 10-11)- schools with variable curricula-schools with extended study of separate subjects and school-types leading to Higher Education- grammar schools- lyceum (differ from grammar schools mainly because of their more flexible approach).Furthermore 31 private schools preparing for the Higher Education were established in 1992. Institutions for orphans and children with physical and mental handicaps have considerably decreased during the last ten years.

2. Vocational Training and Specialised Secondary Education(see below).

3. Higher Educationcomprising a total of 21 state-run higher education institutes and 12 private universities and colleges, most of which have been introduced since 1992. This has led to a remarkable increase in the provision of higher education.

4. Distance Education

5. Non-Formal and Adult Education

Curricula have been subject to major changes in the educational reforms carried out since 1991. There has been a specified approach to teaching Russian with regard to the typical linguistic environments. Hours of Russian teaching in Kyrgyz schools have been phased down, and hours for teaching Kyrgyz in Russian schools have been increased. More emphasis has been put on teaching foreign languages among them German, English and French, starting from grade one onwards.

The reforms also promote the introduction of computer courses, with limited success due to financial shortages. Furthermore the following new subjects have been introduced in Basic Education: Natural Sciences, Introduction to Economics, Motherland Studies, Geography, Basics of Computer Science, Foreign Languages and Basic Marketing.

The Kyrgyz education system is nowadays gravely affected by budgetary constraints, which led to the closing down of nearly one third of all teaching institutions and irregular payment of salaries of teachers. This has hindered reform and dissemination

of new teaching material, affected the physical premises of schools and led to higher costs for parents. In basic education up to 11 subjects are still compulsory, and there is often only one teacher in charge of all subjects.

It is estimated that nearly 50% of all schools urgently have to carry out repair works. Apart from that, heating is a major problem in the particularly harsh winters.

Many teachers have quit their occupations to work in the private sector or to enter other more regularly and better paid professions, furthermore there has been considerable emigration of highly qualified teaching personnel to Russia, and it is difficult to fill vacant posts in rural areas. In order to cope with the disparity between students and adequate educational facilities, many schools use a multiple shift system, which is particularly inconvenient for pupils in rural areas, who often have to walk considerable distances in the dark.

Provision of adequate text books is one of the major problems the reformed education system faces nowadays, particularly in the context of the new curricula. There is also an increasing demand for teaching in Kyrgyz. The majority of available text-books still date from the Soviet area and of course show strong ideological influence, particularly in social subjects.

The government's educational expenditure has dropped from 9% in 1989 to 3.7% in 1993 as a proportion of the GDP, but rose despite the budgetary difficulties to 6.1% in 1995. In comparison to other countries (high income countries as well as countries in economic transition) Kyrgyzstan's expenditure for education and training is still particularly high, but it has to be taken into consideration that these figures, related to an inaccurate GDP, are only approximates. This makes it difficult to estimate the real costs of education.

Education is nowadays mainly financed by local and republican budgets and also, innovatively, by funds from companies, associations, community based organisations and foreign sources. Other alternative funding sources accessed by education and training institutions are additional training services, consultancies, publications, donations, loans and grants, and the newly introduced fee payments and income from production.The division of funding is as follows:

Types of school	Funding provided by
pre-school primary school secondary schools	local budgets from oblates and rayons
specialised secondary schools	republican budget from the Ministry of Culture, Ministry of Agriculture and Food; Ministry of Health, local authorities
vocational training institutions	republican budget (as above) and local budget, since the budget law of 1995 about 9% raised by the institutes themselves
higher education institutes	republican budget, mainly funded by the Ministry of Education and Science

Analysing the expenditure of the total education budget per sector it can be clearly seen that pre-school, primary and secondary education are given priority (as stated in

the Law on Education). Pre-school, primary and secondary education received 69.2% and tertiary education only 10.6 % in 1994. These figures reflect the importance the population in general gives to education and training.

The expenditures for tertiary education compared to those of other transition countries and even many industrialised countries are much lower, which on the one hand shows the falling of average student numbers mainly for economic reasons, but also reflects the fact that the number of private institutions providing higher education has risen in recent years.

As demographic forecasts for 1997-2005 indicate that the number of children from 5-9 will decrease for demographic, economic and ecological reasons, more emphasis will be put on developing the secondary education institutions further.

Levels of enrolment for the various types of schools have also changed noticeably, for instance the number of children taken care of in pre-schools and kindergartens decreased by 36% from 1993-1994. This development is mainly due to the closure of factories and institutions which offered such services for their employees.

In primary schools (the last year of kindergartens included) and secondary schools the number of pupils increased slightly by about 1.1%. Though 87% of all learners attend this category of education, expenditure from the whole educational budget on this category amounts only to 56%. This can be explained by the fact that pre-schools and kindergartens do not only pursue educational tasks, but also focus on health care and cultural and social goals.

Specialised secondary schools saw a decline in student numbers of 15.5% and vocational training schools had a decline of 7.3%. The reason for the decline can be mainly seen in the general economic situation (for a more detailed analysis please see below). The same trend is to be observed in the field of higher education with a decrease of 27.6%.

II. Initial Vocational Training and the PTU System

Introduction

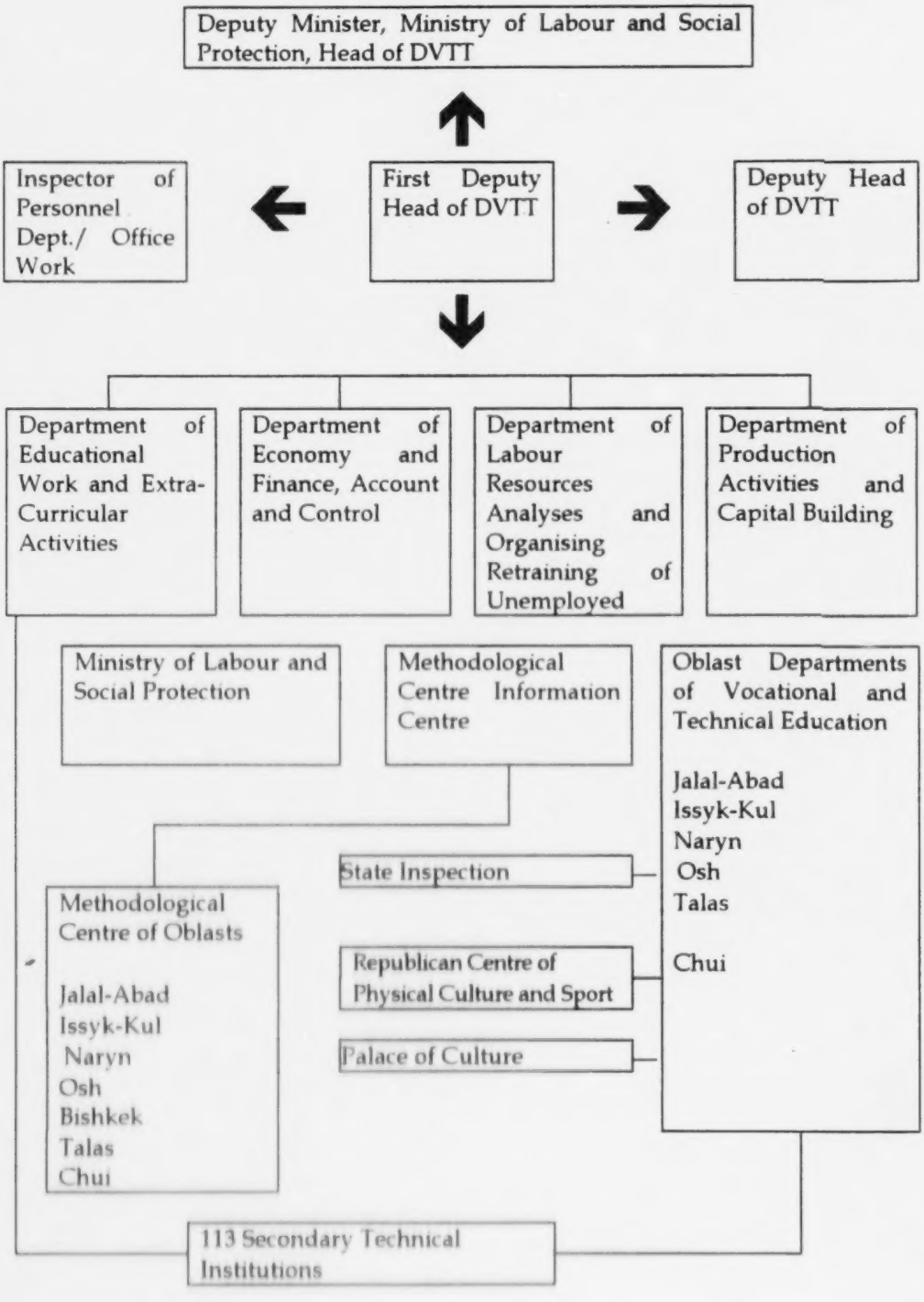
In the Soviet Union, all students had a choice after 8th grade in secondary school: to continue into 9th and 10th grade and prepare themselves for higher education, or to switch over to three-year vocational training in a PTU. This system started to be reformed in the late 80s, when a compulsory 11th grade began to be implemented, and more general training was introduced in vocational training. One of the main ideas with this reform was to improve the theoretical opportunity for a student graduating from the PTU system to, at a later stage, continue to higher education. In Kyrgyzstan, however, this reform never actually took place entirely - the parts which were implemented, were withdrawn in connection with the passing of a new Law on Education in 1992. Consequently, students graduating after 9 years of compulsory school either continue studying in grades 10 and 11, or go to vocational training. There is today also a third option - to drop out of school. Statistics show that as many as 33% of the students actually do not continue neither to vocational training nor to upper grades of secondary school. Given the fact that the minimum working age is 18 years, the only possible explanation is that these young people of 15-16 years are going to the informal sector of the economy - the majority to be found in the agricultural sector in the rural areas.

Thus, initial vocational training is given to students after 9th grade and for 2 years. In some cases students can enter the system upon graduation from the 11th grade. Since 23 of the schools have been turned into technical lyceums, they now also offer courses of three years' duration.

Organisation of the PTU system

During the Soviet period, vocational training in Kyrgyzstan was managed by the Ministry of Vocational Training. At the beginning of the 90s this Ministry was merged into the Ministry of Education and Science (MES). In 1992, however, a new independent body, the State Committee of Training became responsible for vocational training. In connection with a new reform in May 1994, aiming to reduce the number of ministries and state committees, this committee was, together with the Employment Service, merged into the Ministry of Labour and Social Protection (MOLSP), thus underlining the importance of a close link between vocational training and the labour market. The current name of the PTU organisation is "Directorate for Vocational and Technical Training (DVTT)". This means that a considerable part of the VET system in Kyrgyzstan is currently under the responsibility of MOLSP. The current structure of DVTT is shown on the following page.

The Directorate for Vocational and Technical Training (DVTT)



Today, the system formally consists of two levels: the central body, DVTT, the 113 vocational schools, and the Republican Centre for Training of Entrepreneurs. The regions, even though no formal links exist, influence DVTT in several ways - through financing, staff training, regional methodological centres, etc. The central administration has, like other governmental bodies, suffered from severe cuts during recent years. As the Ministry of Vocational Training, the organisation had a staff at a central level of more than 70. After the latest cuts in early 1996, a total of 16 persons remain. It is quite clear that, given the tasks for which DVTT is responsible according to a Presidential decree of 1994 (see below), the central administration is heavily under-staffed, and that in reality the overall objective is to keep the department operational at a minimum level. Apart from jeopardising the co-ordination of the training conducted, and the training itself, implementation of international co-operation programs is also suffering from this under-staffing.

At school level, some changes have been carried out, and others can be expected to follow. The changes up to now have mainly concerned the status of some schools. Thus, more than 30 of the vocational schools have been re-organised into technical lyceums with three-year programmes, allowing students to continue to higher education upon graduation.

Tasks and responsibilities of DVTT

According to the Law on Education, passed on December 16 1992, vocational training, carried out by the PTUs is supposed to be "rapid training in the field of any blue-collar profession. Vocational training does not presuppose any increase of education level of a student" (art. 17). This does not reflect the situation in the later stages of the Soviet Union, but rather the situation after the second world war, during the rebuilding of the Soviet economy.

On the other hand, the presidential Decree No 293 from May 4, 1994, states that the principal tasks of DVTT are the following:

- Plan and execute Government policy on vocational training and training of skilled workers and entrepreneurs; train and retrain unemployed and under-employed;
- Elaborate and enforce standards for professional and vocational training; implement high standard training in vocational training institutions considering the latest technological trends, pedagogical development, etc.;
- Establish and strengthen production of training materials;
- Establish production units or enterprises in vocational training institutions;
- Arrange rehabilitation programmes for vocational training institutions;
- Raise funds for financing vocational training.

It is obvious that the two documents do not fully agree with each other. It is questionable whether the re-organisation of some of the schools into technical lyceums can be considered to be in accordance with the present law. On the other hand, a training system only aiming at rapidly training workers to be put into the production process must be considered too Tayloristic and thus obsolete for a society aiming to eventually compete with its products on the international market.

In a speech given by the head of DVTT before President Akayev at a conference in Bishkek addressing educational issues on May 31, 1996, this point was heavily stressed with an urge to the President to change the law in order to be able to train workers more fit to a constantly changing labour market.

Financing

Financing of the PTU system, as well as financing the entire VET field, is one of the main problem areas today, and is discussed more in detail in another part of this paper. Here are some basic facts and problems:

52 of the 113 PTU schools are financed by the republican budget, the remaining 53 are financed by regional and local budgets, thus giving the regional and local authorities influence over the system. It should however be noticed that in percentage of the overall expenditure, the republican budget covers 66% and the regional and local budgets 33%.

This is explained partly by the fact that most of the republican-financed PTUs carry out relatively cost-intensive training in comparison with PTUs financed regionally and locally, caused partly by the fact that republican PTUs in many cases attract students from the whole country and therefore must cover accommodation, food, etc. for the students. In fact, expenditures for boarding and lodging of students make up the biggest part of total expenditure (37-38%). The other major cost is wages (32% of total expenditure).

Of all expenditure (republican, regional and local) on education, initial vocational training is given 11,7%, a comparatively high figure if taking into consideration the low number of students. Still, it covers mainly salaries, boarding and lodging expenditures, and a very small amount of technical equipment and maintenance of schools. Money for study material, staff upgrading etc. is hardly foreseen at all in the budget. It is expected that the schools will cover this and other expenditures, as well as part of salaries etc., from other income sources.

Unfortunately, the budget to a high degree exists only on paper. Out of the republican budget the PTU system will this year only get 55% of the planned amount. Since, as stated above, the republican budget covers 2/3 of the financing of PTUs, this means a direct cut of 33% of the overall financing of initial vocational training. This makes financial planning for the schools literally impossible. At present (June 1996), teachers, trainers and other staff of the PTUs have not been given their salaries since March - there is no money. No scholarships have been handed out to the students. Consequently, the system is desperately looking for other income sources. The main such sources are:

- Fees from students. At present approximately 5 000 of the total amount of students (32 000) pay for their own studies. This figure has risen sharply during recent years and will most probably continue to rise, leading to obvious contradiction of the statement in the Law on Education that initial vocational training principally shall be given free of charge for young people. It can be estimated that this income source generates approximately 10% of the total financing of the PTUs.

- Selling products and services, generated during or outside the training process. This is much supported by the Government as a possible income source. Today approximately 8-9% of financing stems from this source. This has obvious negative consequences, and it is considered by many to be the ultimate limit, before many of the schools will turn into production centres, dropping many of their training commitments.

(Source; ADB Report on Kyrgyz Education System, December 1995)

- Retraining and upgrading activities for unemployed and employees. These activities are not yet very well developed and make up a maximum of 2% of the total financing of the PTUs. Considering the fact that there are good physical facilities at the schools, this option can grow in the future. The issue of retraining and upgrading will be discussed in another chapter of this paper.
- Unfortunately, it is still more profitable - at least in the more central areas of the country - to let out premises instead of using them for instance for retraining activities. Revenues from this source make up approximately 1% of the financing of the PTUs

Staffing

As stated above, the central administration of DVTT at present consists of 16 persons. The ADB report rightfully stresses the problems of lack of proper job descriptions, lack of criteria stipulating the qualifications and experience needed for specific positions, and staff being up-graded and down-graded on an ad-hoc basis. On the other hand, apart from the constant cuts of staff, the situation at the central level of DVTT has been stable in the sense that the remaining staff almost exclusively have been working in the system for several years. Furthermore, upgrading courses for all remaining staff in computer usage, management, marketing and English language was begun in Spring 1996 in the framework of the World Bank co-operation project and the programme of total computerisation of the central administration, also during spring 1996. The problems lay therefore not so much in the experience or skills level of the staff , as in the situation of under-staffing, and the low and unstable salary situation. In fact, the up-grading programme now started can eventually prove to be a two-edged weapon, since staff members, under the present salary circumstances, might choose or be forced to look for more advantageous workplaces.

At school level, the main problem seems to be the opposite one. The present teacher or trainer to student ratio is 1:8.0, whereas the staff to student ratio is 1:4.2.[2] In other words around 50% of the staff at the vocational schools are non-teaching staff. Even taking into consideration the fact that some of the staff are used for production of goods to be sold and give income to the schools, the figures indicate a certain imbalance between teaching and non-teaching staff.

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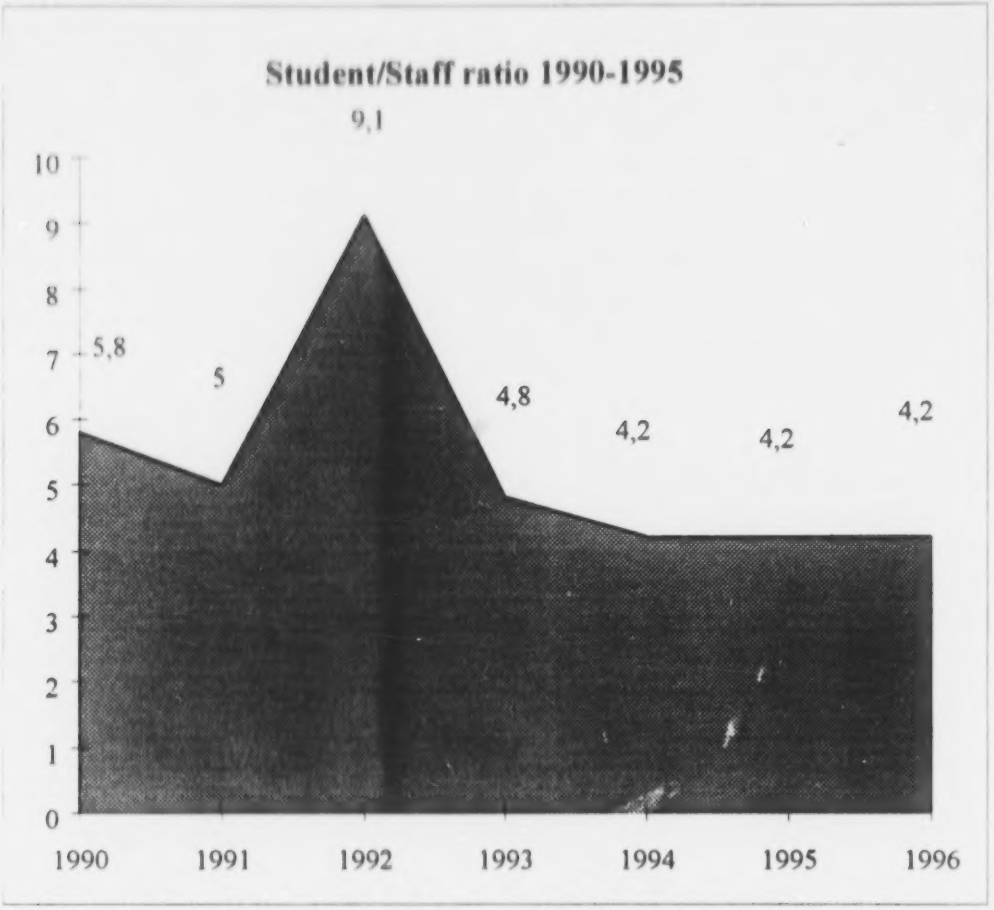
[2] In this paper "teacher" means theoretical instructor and "trainer" means practical instructor. The tasks are very distinctly divided in the system. The figures given are based on the Republican budget. 52 of the schools are financed by regional and local budgets, but the figures by all probability reflects the overall situation.



A certain brain-drain can also be noticed from the statistics. Thus, the amount of teachers with higher education diplomas working at vocational training schools dropped from 86% in 1992 to 74% in 1995. This is explained both by teachers finding new jobs and teachers (mainly of Russian origin) leaving the country.

Regular upgrading programs for teachers, trainers, and other personnel at schools are foreseen in theory. In practice however, such training is carried out rarely. The problem is mainly practical - there are no means to cover costs for transport, accommodation, etc. for such events. There is a certain expertise on modern training issues in the country, especially at the Methodological Centre under MOLSP and its sub-centre in the regions. Since, however, main upgrading events for employees in the vocational training sector used to take place in all-Soviet upgrading centres in Moscow and Leningrad, much remains to be done in the area of building up own expertise.

Students in the PTU system

The prestige of the PTU system had started to decline by the end of the 70s in the former Soviet Union. As mentioned, much of the system was actually targeted at quickly rebuilding the Soviet economy after the second world war. In Kyrgyzstan, for instance,

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the first PTUs opened up during the later years of the war.[3] The reform initiated by the end of the 80s was meant to address the decline. Since no such reform has yet taken place in Kyrgyzstan, the tendency of decline of interest can be seen very clearly. During the 10 years from 1986, the number of students attending PTUs has been more then halved from 67,200 to 32,000 in 1995. The forecasts for the school year 1995/1996 show yet another jump downwards - to approximately 26-28,000 students. The number of schools has not decreased accordingly - today there are 105 day-time PTU schools left, out of an original total of 114 If nothing is done about the situation, therefore, many of the schools will be closed down in the very near future.

One conclusion which can be made if the decline of the number of students in the PTU system is compared to the high level of drop-outs after 9th grade, is that there is probably a considerable group of involuntary drop-outs by young people who would have gone to the PTU system, had they had the financial means. This reflects the financial situation of the system, which can no longer guarantee free board, lodging, transport, etc. Furthermore it can be suspected that this also worsens the existing gender problem. It is true that, lately, the relative number of female students has increased to 35% of all students in the vocational training system, but there is a tendency for families to favour male children over female ones when it comes to paying for education.

Problems with inadequate levels of student preparation can be noticed, due to the deterioration of education at compulsory schools. Many schools have therefore introduced preparatory courses to raise the basic level of the new students.

There is also a worsening situation for graduates to find a work placement and subsequent employment. In the former system, when the PTUs were linked to one or more enterprises or kolchozes[4], the job placement rate was more or less 100% - in fact, the students knew from the very beginning of the training where they were going to work, and the training, especially the practical part, was more often than not a direct appendix to the work. Today, however, there are no or very weak such ties, while at the same time the training process has not changed to the same extent. This means that a considerable number of students are being trained for jobs that no longer exist, while at the same time there is no training for those work fields where vacancies are to be found. The percentage of people finding a job after graduation has dropped to a level of 70% today, and the expectation is that the number will continue to fall.[5]

Curricula and methodological tools for initial vocational training

DVTT is responsible for development of professional standards and consequently for a lot of the inputs needed to create the curricula used by the PTUs under DVTT. The responsibility for drawing up and approving curricula however lies with the Methodological Centre, which reports directly to MOLSP. In practice this seemingly surprising situation is not a problem as such, since the Methodological Centre is

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[3] The PTU schools have no names, only numbers arranged in chronological order. Thus school No 1 in Jalal-Abad, concentrating on professions in the agricultural sector, was the first PTU to be established, in 1943.

[4] The *soukhozes* can in this respect be seen as an enterprise.

[5] The period considered after graduation in these statistics is rather short - 3 months.

physically situated on the same site as DVTT. The discussions and attempts to diminish the number of professions, and specialisms within professions, have been continuing since independence. Even though a considerable reduction has been made, it is commonly considered that the number is still too high, or to be more accurate, that the specialisation is too narrow. Today, there exist 111 approved professions, with 305 approved specialities. At the same time, 65% of these professions are covered by curricula approved by the Methodological Centre.

There are a number of problems with high specialisation and the structure of the curricula. First, the specialisms and curricula mainly reflect a situation which today does not exist. This is possibly most noticeable in the agricultural area, since a high number of PTUs (60 of 105) are specialised in this area. Most of the professions and specialisms still reflect the needs of the collective farms, with specialities like tractor-drivers, maintenance specialists for harvesting machines, specialised rabbit-breeders, etc. Today, the urgent need is rather for farmers with a broad profile including SME skills, able to set up private farms. The same examples can be made in other areas, especially industrial areas.

On the other hand there are areas which are covered neither by professional standards nor by curricula. In the BILIM programme there are examples of such professions and professional fields as computer-steered mechanical works, private farmers, automotive, the hotel and tourism field, etc. Evidently, this gives a negative effect on job placement for the individual and on the ability of the training system to meet the demand of the labour market and the needs of the economy in general.

High specialisation also hampers the mobility and adaptability of individuals in the labour market, in a climate where change is inevitable. This will in the long run give a more costly system with demands of total retraining for large groups in the future.

Local PTUs are encouraged both to adapt curricula to local circumstances and to develop their own curricula. There are however certain problems connected with this. The Methodological Centre, as well as DVTT, is trying to extend its funding with other income sources than the budget money from MOLSP. Until recently, therefore, schools have been charged a fee for the use of curricula. Furthermore, there have been reports of the Methodological Centre being given curricula for approval by local schools, only to charge them a fee for giving it back with an approval seal. This of course did not encourage any innovation spirit at the schools. This system is reported to have been abolished, but no confirmation of this has yet been given.

The financial problems are also hampering the co-operation between schools. Since a growing number of students going through initial vocational training are paying fees for their training (today approximately 5,000 students out of 32,000), and furthermore since the PTUs are involved to a higher degree in retraining of the unemployed, a competition situation between the different schools has started to occur. The schools are no longer willing to inform each other about new curricula in fields considered to become important in the future.

Technical equipment, teaching tools and physical premises of the PTUs

The situation in relation to the level of technical equipment, teaching tools and the physical premises of the PTUs is quite alarming. Many of the schools have enough, and in fact too much space and premises. The problem is, that in many cases there is no funding available to maintain, let alone refurbish, the schools. In order to save resources, parts of schools are shut off, and heating is limited to a few months of the year. This often leads to pipes cracking when the water freezes, with more damage as a consequence. There are no statistics for the PTU system alone, but some facts are available for the compulsory and PTU system together. For example, in the Osh region, out of 667 schools, 93 need general refurbishment - 22 of these schools are said to be in a "catastrophically" poor state. Furthermore, in this region, there is a need to build 20 new schools.

Even though some money is spent in the budget on improving the level of technical equipment, the situation is steadily becoming worse. The enterprises, which used to give equipment to the schools connected with them, are today almost exclusively unable to provide the schools with this kind of aid. Furthermore, many machines are not being used because of lack of spare parts and consumables.

The Presidential programme foresees computerisation of the whole system before the year 2000 as a priority. At present, this seems to be a rather optimistic objective.

Provision of teaching material is hardly given any money at all in the budget - the schools have to find external funding for this. This obviously means that, firstly, the students in most cases have to buy the books, etc. themselves, and secondly, that the teaching material in many cases is outdated or absent. Very little has been done on the issue of providing the schools with modern teaching material. The Methodological Centre lacks both experience and funding for developing new material. More often than not, new material is in the form of books and aids developed in Russia, or in some cases in other NIS countries. It is estimated that approximately 30% of all study material and books used are imported through barter agreement - in most cases by local schools or even individual teachers. It goes without saying that no adaptation of such material to Kyrgyz circumstances is taking place.

Printing facilities are quite developed within the PTU system; School No 3 in Bishkek, which is the only school training in polygraphs, has got some off-set printing facilities, and performs most of the printing being done at present. Their capacity in this respect will be further strengthened, as they are included in the WB programme for development of retraining of adults. The Information Centre being developed in the framework of the same WB programme within the Methodological Centre, will also have some printing facilities from autumn 1996.

International co-operation in the area of initial vocational training

DVTT has at present three ongoing co-operation projects concerning initial vocational training. Since DVTT is responsible for the development of entrepreneurship in Kyrgyzstan, a business school for entrepreneurs has recently been opened on the premises of one of the PTUs in Bishkek. The centre offers 3-4 year courses in SME skills, management of SME, etc. In the framework of a bilateral

agreement the Danish organisation EU-Net is helping this business school with development and publishing of text books (3 books published so far) and with providing upgrading courses for teachers, both in Denmark and Bishkek.

With Turkey, DVTT has developed a technical lyceum especially designated for female students. The Lyceum, which has been working for one year, has at present 136 students and is mainly training for professions in the garment field. The co-operation includes training of trainers, scholarships for Kyrgyz students in Turkey, delivery of equipment, and development of teaching material.

With GTZ, Germany, DVTT has been working since 1994. This co-operation is multi-faceted, including seminars and study visits for DVTT staff and teachers on different aspects of VET, but concentration is mainly on the development of a teacher training institute in the town of Tokmok (mainly for automotive and service professions), and one in Mailuu-Suu, Osh region (mainly for the agriculture field).

III. The System Of Special Secondary Education (SSE)

Many of the issues mentioned in connection with the overview of the PTU system also concern the SSE system. Thus, a general lack of training material, up-dated curricula, technical equipment, up-grading possibilities for teachers and other staff, problems with the physical premises, etc. are typical features of the SSE as well as the PTU system. These items will therefore not be specifically mentioned again in this chapter.

Organisation of the SSE system; contents of training

Special secondary education is provided in 48 institutions. In general, these schools are either colleges or technicums. Schools denoted as "Technicums" provide school leavers with nine years of general education with a secondary technical and general education of two years' duration which is rewarded with a diploma of technical education. The programmes allow promotion to higher education institutions. Schools referred to as "Colleges" offer the same type of secondary courses, plus two additional years of studies at post-secondary level leading to a qualification of higher technician (which also entitles holders to enter into the third year of higher education). Entrants with eleven years of general education can enter the post-secondary courses directly.

The standards and pedagogical frameworks of all SSE schools are developed and monitored by the Ministry of Education and Science. However, only 16 of the schools belong to MES. The responsibilities of MES are being carried out in the Division for Special Secondary Schools (under the Department for Higher Education and Special Secondary Schools). Considering the fact that the total number of staff of MES is currently 39 - compared with a staff of more than 300 prior to independence - it is clear that MES faces difficulties in carrying out their tasks for SSE as well as for other parts of the education sector.

The majority of SSE schools fall under the responsibility of other branch ministries. Since many of the schools are specialised in agriculture and medicine, they belong to the Ministry of Agriculture and the Ministry of Health respectively. Other ministries with SSE schools are the Ministry of Industry, the Ministry of Culture, the Ministry of Tourism and Sport.

SSE institutions are distributed all over the country, but there is a distinct concentration in the Bishkek (mainly pedagogical colleges and medical schools) and Osh (mainly agricultural technicums) areas.

As for the substance of the training offered, many of the Technicums and Colleges are "polytechnic" schools (catering to a variety of trades), although some are more specialised such as the schools for paramedics and the teacher training schools. As in the PTU system the predominance of technical/industrial and infrastructure training is obvious, though there are also a number of arts and culture training institutions. The relatively lower emphasis on rural skills than in the DVTT schools is illustrated by the fact that there are only five agricultural and one food industry-oriented Technicums.

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The only explicitly commerce- or service-oriented school is the Bishkek Commercial College, which is now attempting to develop the basics of a modern curriculum in commercial subjects (but lacks suitable equipment and materials to implement such programmes effectively). Skills courses in the Technicums are generally less narrowly focused in their technical substance than the PTU centres, but the content appears very traditional and largely out of date relative to both present technology and foreseeable market needs. The post-secondary courses are of recent origin and lack adequate facilities to be cost-effective at present.

Training tends to have less practical content than in the PTU system. The curricula foresee practice in enterprises, but recently such placements have become more difficult, since employing organisations in many cases have begun to demand payment for accepting trainees.

Some current courses such as basic auto mechanics seem out of place in the Technicums and should instead be expanded in the DVTT centres. Inevitably there are overlaps between related professional courses offered in both vocational training and specialised secondary education. The ADB report rightly stresses that the fragmentation of the management of technical and vocational training as a whole, a consequence of the large numbers of individual executive bodies involved, does, however, lead to potential economies of scale and synergy not being exploited as fully as they might. This, together with the issue of a management information system, will be further discussed in the final part of this paper.

Financing

As is the case in the PTU system, there is a division in funding for the SSE system between the republican and the regional/local budgets. The contribution from the republican budget is of a somewhat higher percentage than the contribution from the local budget. Totally, the SSE system receives 6-7% of the overall (republican and local) expenditures on education.

At the republican level there is also a inter-ministerial division with funding from the ministries of Education and Science, Culture, Agriculture and Health.

This funding level is inadequate and in particular funding for textbooks, technical equipment and other materials is almost negligible. Furthermore, the SSE institutions have less opportunity to get additional income through production, due to the profile of education they offer. The main income source besides budget funding is therefore student fees. At present 14.1% of trainees pay for their own education.

Staffing

The problem which can be noticed in the PTU system with teachers, especially highly qualified teachers, leaving their jobs concerns the SSE system as well. Here, however, the problem has so far been smaller, since the average salary level is higher than in the PTU system. Problems with the payment of salaries are the same as in the PTU system.

The teacher/student ratio is higher in the SSE system than in the PTU system. At present the ratio is 1:11.8 in the schools under MES. Since many of the schools under the branch ministries work in fields which require more practical training, it can be suspected that the ratios in these schools are lower. Unfortunately, no actual figures are available.

Students in the SSE system

As is the case with the PTU system, the prestige of the SSE system has been steadily declining during the last 20 years. The number of students has declined from 43,400 in 1990/1991 to 29,300 in 1995/1996. This trend is expected to continue. Once again, one of the problems is the increased costs for the individual in the system. At present 14.1% of the students pay themselves for their education and there is an urgent need to increase this figure due to budget pressure.

In comparison with the PTU system there are relatively more female students in the SSE system. Approximately 61.3% of the students attending the SSE schools are females. Evidently, the main reason for this is the profile of the schools.

IV. Retraining of the Unemployed in Kyrgyzstan

General remarks

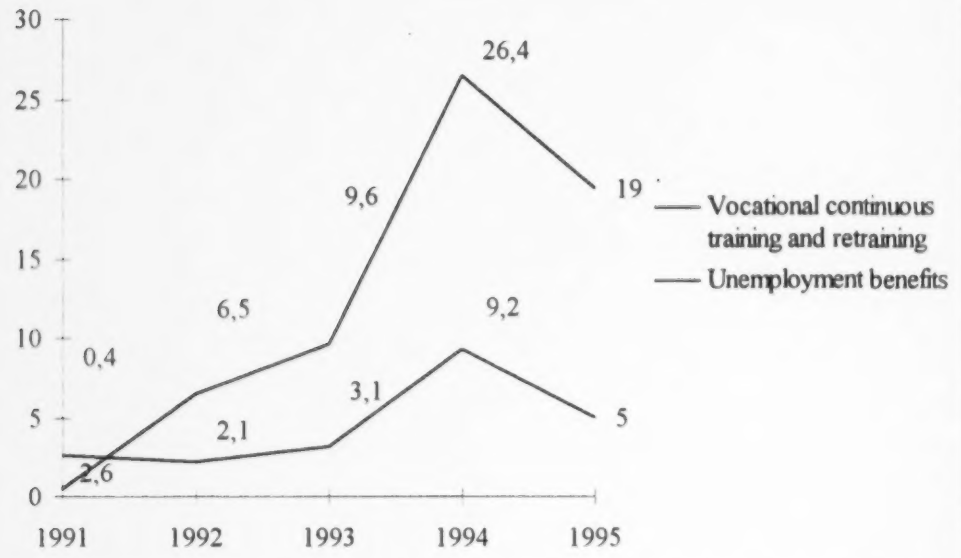
There is a consensus with regard to the retraining of the unemployed, in the sense that all involved parties agree that there is a big and growing need for this service. The imbalance between the economic and industrial structure during the Soviet period and the needs of the present and future labour market is considerable. The Employment Service (ES). under the Ministry of Labour and Social Protection (MOLSP) is responsible for directing unemployed people to relevant retraining at private or state-owned institutions. The main problems for ES in this field so far are:

- Lack of financing
- Lack of proper labour market analysis
- Lack of proper policy
- Lack of good retraining courses;
- lack of ability of ES to assess quality

The present **lack of financing** is likely to not only continue but to worsen. The number of people directed to retraining from ES has been lower than expected. In 1995, which ended with unemployment of 50,400 persons, 8,000 persons received retraining, 2.2 times more than in 1994 (3,600 persons). During the first 4 months of 1996, another 2,600 persons were directed to retraining, which indicates a decline for 1996. However, unemployment rose 50% during this period and amounted by May 1 to 76,600 persons.

These figures do not imply that ES is opposed to other active labour market measures. As an example, 5,000 people were directed to relief work activities in 1995. In 1996 the figure for the first 4 months was 1,300. The figures on the contrary reflect the very limited means which ES has at its disposal. Until 1995, a special Employment Fund existed. To this fund 2% of the employers' salary funds were regularly transferred. The Employment Fund was merged into the Social Insurance and Pension Fund by the end of 1995. Even though employers still contribute with 2% of the salary funds, the financing of ES activities has decreased since the priority of the new enlarged fund is to hand out pensions in proper time. ES therefore has to concentrate on the delivery of subsidies to the registered unemployed.

Expenditure of the Employment Fund for Vocational Continuous Training and Retraining



The problem concerning **lack of proper labour market analysis** has recently been addressed with some positive results. Much in this field has been achieved in two on-going international co-operation projects. With the German GTZ, ES has started with more systematic gathering of information on the situation in the labour market. The results and statistics - including figures of unemployed, vacancies, job placements, retraining, relief work - are published monthly and quarterly.

With the Australian organisation DEET, which is carrying out a World Bank programme with the objective of strengthening ES, a system for more confident gathering and dissemination of information is being developed and implemented. The project includes computerisation of ES institutions at all levels, including the employment centres. The computerisation is supposed to be completed in late 1996. The main problem - the difficulty of predicting the future labour market - however remains.

At present the number of vacancies is extremely low; approximately 1,800 vacancies are registered at ES. Since there is no functioning system of regular meetings between ES and employers, forecasts are based on guesses and on discussions with other political organs. Thus, retraining is foreseen in three areas: preparation for establishing one's own business; knowledge of market relations, legislation, entrepreneurship and new forms of management; and training for sectors with high priorities in the economy including fuel and power industry, agriculture, public health and personal services. These must be classified as relatively broad forecasts, hardly based on proper statistics.

The problem of **lack of policy** has also gradually been solved. One of the main reasons, apart from the purely financial, why comparatively few persons have been referred to retraining is that ES was reluctant to arrange for training unless a

corresponding vacancy had already been identified. This policy is not practical in a situation of large scale shedding of labour by enterprises which may occur in the near future. In such situations a system of retraining based on the expected numbers of unemployed and reasonable estimates of future employment opportunities in different professions is to be preferred. Such estimates (see above) are necessarily uncertain and engender the risk that retrained graduates will not in fact find employment in the speciality for which they have been retrained. Experience shows, however, that such an approach leads to vastly better overall economic results than doing little or no retraining. In fact, the average result of retraining can be seen as a confirmation of this: whereas the proportion of job placements to total numbers of registered job-seekers is 9.5%, the figure rises to 22% for those who undergo such training programmes. This figure can still seem to be small, but taken into consideration the low rate of official job vacancies, the result must be considered to be satisfying.

Another policy issue has been the relationship between ES, the State, and the institutions to which the unemployed are being referred for retraining. On one hand, the decreased number of students in the PTU system has meant that there is a growing capacity at these schools to carry out retraining courses. The state has therefore shown a great interest in giving DVTT the leading role in the retraining field. On the other hand there is a reluctance to create a monopoly system for retraining. Therefore there has also been an urge to promote private alternatives. At present the official policy of ES is to refer about 1/3 of the total number of persons being retrained to private institutions, and 2/3 to DTWE. (To be more specific to DVTT and the SSE system. However, the SSE system gets less than 10% of this amount, and is therefore included later in the discussion of DVTT and its role in the retraining field). Until 1995 ES also ran some retraining institutes of its own. This created a lot of strain between ES and DVTT, with the latter accusing ES of keeping the most "successful and profitable" training to itself. In order to separate the functions of ordering and delivering of retraining, these centres were closed down in 1995.

As far as **lack of good retraining courses** and **lack of ability of ES to assess quality** is concerned, there have so far been only small improvement attempts. In short the problem can be said to be two-fold: lack of experience in ES to choose the relevant and most cost-effective training courses, and inadequate supply of a variety of relevant training courses with suitable content. The first part of the problem is hard to cope with for several reasons. First, which in itself is positive, the purchase of training is made locally. Therefore, an overall up-grading of a great number of ES staff on how to make necessary needs and quality assessments is necessary. Second, no thorough data-base of training suppliers exists at present, although the co-operation with DEET hopefully will change this situation. Third, personal relations with different training suppliers seem often to be the decisive factor when unemployed people are referred for retraining. Fourth, and most important, the economic situation often forces ES staff to refer the unemployed to the cheapest available training, regardless of its quality and/or relevance.

The second part of the problem (the content of the training courses) is currently being improved, partly by the policy mentioned earlier of referring the unemployed both to private institutions and to the PTU system, which encourages a certain competition, and partly due to the international co-operation which DVTT is carrying out in this field (see below). So far, however, the training courses being

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offered to ES have mainly been shortened versions of initial vocational training courses, with little or no consideration given to the specifics of adult education.

Retraining of unemployed people in the PTU system

In 1995, approximately 3,700 unemployed people were retrained by DVTT on the premises of PTU institutions. This figure is expected to rise to approx. 8,000 in 1996. DVTT has large physical capacity to retrain the unemployed. Today, given the decreased number of students in initial vocational training, 30-35,000 persons annually could be retrained in the PTU system. As stated earlier, however, it is unlikely that the financial situation will improve to the degree that such figures are likely to become realistic in the short term.

A majority of the 113 schools in the PTU system is directly involved in retraining activities as a complement to initial vocational training. The curricula for such training is elaborated either centrally or locally and then approved by the Methodological Centre of MOLSP. So far, about 115 different curricula for retraining of adults in different professions exist. Not all of them however take into account the difference between training of youth and training of adults. This situation is being improved by the World Bank Programme currently being carried out by AmuInternational, Sweden and Ohio State University, USA. This co-operation with DVTT is working with the following components:

- strengthening the central and regional administration of DVTT through management training, computerisation and upgrading of training;
- improving the co-operation between DVTT and ES through the setting up of advisory committees, and mutual seminars on issues like retraining, quality assurance, vocational orientation;
- setting up of nine model training centres in seven training fields (agriculture, service, electronics, electricity, construction and maintenance, automotive, graphics and printing). This sub-component includes procurement of equipment, development of training curricula, upgrading of trainers, implementation of curricula, and elaboration of entrepreneurship modules;
- strengthening of the Methodological Centre and setting up of an Information Centre.

As far as curricula development is concerned, the main idea is to elaborate curricula for different professions in the priority areas and then to multiply and implement them nationally through the Methodological and the Information Centre. So far, however, these centres have not been strengthened enough to be able to play the key role which is foreseen for them. The curricula are being elaborated in modular form at the model centres, in close collaboration with the local employment centres. Advisory committees, with representatives from DVTT, ES and local employers, have recently been set up, but do not seem to work properly yet.

Why retraining?

The importance of retraining is perhaps best described in the OECD publication "Employment Outlook" (July 1993), which concludes that "training programmes, job subsidies and counselling to job-seekers, if well targeted and appropriately implemented, have the potential of reducing unemployment...". OECD's framework for labour market policies proposes a progressive shift of resources from passive income support to active measures directed at three main goals - to mobilise labour supply, to develop employment-related skills and to promote efficient labour markets. Economic theory suggests that active policies can lower structural unemployment through two main routes. First, they can enhance the ability of so called "outsiders" (the long-term unemployed or first-time job seekers) to compete more effectively for jobs, thereby weakening the bargaining strength of "insiders" in wage formation. Second, they can promote more efficient matching between job-seekers and available vacancies.

The perception that retraining is a costly option arose from early programmes in several countries in which facilities for retraining were created, set apart from the existing training system, often operated by or for Ministries of Labour under regimes which did not promote economies of scale. With few exceptions, these dedicated systems have been abandoned as prohibitively expensive. Modern programmes instead take a market approach, with labour market authorities contracting out training provision under competitive procedures to any qualified supplier, public, corporate, or private. Under such arrangements, retraining need not be expensive; a World Bank survey in some countries shows that direct training cost added only 22% on average to the cost of unemployment benefits or cost-of-living allowance paid to trainees, the largest cost item being trainers' wages.

Studies have been carried out in several countries of the employment effects and economic returns of retraining. As for retraining programs in transition economies, available information on outcomes is still limited. A study of the Mishkolc Training Centre in Poland showed a 45% job placement rate one month after training, and 60% after six months; this was after retraining of an average duration of 4.5 months, in an area with 20% unemployment. Another World Bank study made in Mexico - a country with some problems similar to those of the transition economies in Eastern Europe and the former Soviet Union - after a very large retraining programme, with more than 300,000 persons retrained over six years, shows that for unemployed persons of certain characteristics - the best combination being adults over 25 years of age with six to 12 years of education and prior work experience - the average monetary benefits of the retraining more than outweighed not only direct training cost, but also the several times larger cost-of-living allowance. The economic return to the programme was mainly in the form of shortening of the period of unemployment, although for adult males earnings also increased significantly. The conclusion is again that targeting retraining on suitable individuals is the key to cost-effectiveness.

V. Main Problems of Vocational Education and Training in Kyrgyzstan Today - Issues and Trends

As can be deduced from the earlier parts of this paper, the situation of VET in Kyrgyzstan today is serious. In this chapter, the four main issues are discussed in more detail. Finally, some development trends for the future of vocational education and training in Kyrgyzstan are outlined.

The main problems facing the VET system in Kyrgyzstan today are:

- Problems of internal co-ordination;
- General up-grading of the VET system;
- Establishing relevant links with the Employment Service and the labour market; and
- Financing

Problems of internal co-ordination of the VET system

In order to get a more efficient system, and to be able to take advantage of economies of scale, the state VET system needs to develop its internal co-ordination. One way of addressing these problems could be better co-ordination between the PTU and the SSE systems. Today, little or no actual co-ordination is taking place between these systems. To some extent, therefore, there is a certain overlap of supply from both systems. As an example, the case of auto mechanics has already been mentioned. The following measures could be a way of improving co-ordination between the two systems:

- **Creation of a management information system**, which would give statistics of courses being conducted, students participating in the training and other relevant facts and figures. A proposal for such a system was made by AmuInternational/Ohio State University (in this case for DVTT), (see annex I)
- **Development of a general policy**, based on gathered information, of division of work between the systems. The objective here is to avoid overlapping, and to try to find optimal duration for different kinds of training;
- **A revision of the Law on Education**, with the main objective being to clarify the responsibilities of the different systems. At the same time, the clause stating that the PTU system should only train blue-collar workers in a rapid way, without taking into consideration general up-grading of knowledge and skills, should be revised, since it hampers the development of a system of continuing training which is needed to meet the constantly changing demands on a modern labour market.

The improvement of co-ordination and the addressing of other problems probably implies the need for a growth in staff numbers for the administrations of both DVTT and the Division for Special Secondary Schools under MES. Incentives such as wages etc. also have to be revised.

The financing of the activities must be co-ordinated better in the future. In the case of the PTU system (where 52 schools are financed by the republican budget and 53

by the regional/local budgets) there is a tendency - although no real figures exist to confirm this - that the locally financed schools are lagging behind as far as equipment, teacher up-grading, etc. is concerned. More co-ordinated financing could enhance the possibility of equal opportunities for the schools, and contribute to a more cost-effective system.

There is also a need for improved co-ordination internally in the PTU system. Today, there exists a certain competition between centres, especially in the field of retraining but to some extent also in the field of initial vocational training. This can on one hand be seen as positive. The problem is, however, that it creates unwillingness to co-operate. Curricula and study material being developed at one school are therefore often not spread to other schools, which means that many schools are "re-inventing the wheel" and that curricula are of different standards.

As mentioned earlier, the role of the Methodological Centre as a co-ordinator of curricula and study material development has until today not been emphasised enough. The proposed management information system could be one way of addressing this problem. Another way could be to consider the creation of "market areas" for the DVTT centres, at least in the field of retraining of adults. In such a model, a number of DVTT centres, based on geographical vicinity, could jointly cover the local market. The centres belonging to one market area should in such a system answer the needs of the local labour market and arrange training courses on the basis of discussions with the employers in tripartite advisory committees.

This demands a very flexible approach from the centres, but would, in the case of a well-functioning system, allow a competition situation, with the local DVTT centres and private institutions offering training services, and at the same time allow certain economies of scale, since the centres, which are elaborating curricula and study material, would not be afraid of giving it away to competitors in the same system - other DVTT schools offering the same training would work in another market area. Consequently, the centres of one market area would also receive elaborated curricula and training material through the Methodological Centre from other market areas.

The Commission on Education and Science, newly created by the President's administration will hopefully participate in the co-ordination of the VET system. The national Observatory, which in the near future will be set up by the Commission on Education and Science under the European Union's Tacis Programme, will also be a useful tool for this co-ordination.

General upgrading of the state VET system

The term general upgrading covers mainly the need to modernise and unify the system of curricula elaboration, the upgrading of teachers and instructors, the modernisation of study material and technical equipment, and general refurbishment of the schools.

Despite attempts to modernise the curricula during recent years, it is generally considered that the training courses are to narrow, and that there is a need to reduce the number of courses and curricula. Furthermore, many fields, expected to be important on the future labour market, still lack proper curricula. One way of

addressing this problem for initial training could be to create a "semi-modular" system along the following principles:

A) All training programmes should be combined into a few clusters, concerning different sectors or areas of professions. As an example, four such clusters might be created; a cluster of training in the agricultural area, a cluster of training in the industrial area, a cluster of training in the service area, and a cluster of training in the business and administration area.

B) All training programmes might be divided in three parts:

1. The first part would contain general subjects, common for all professions in every cluster, i.e. mathematics in the industrial and business/administration cluster, English in the service and in the business/administration cluster, etc.

2. The second part would be a division of the clusters in more specialised areas. The service cluster, for instance, could be divided into an area of tourist-related professions, an area of hotel and restaurant professions, an area of transportation-related professions, and an area of other service professions. Similar divisions would be made in the other clusters.

3. The third part of the training would consist of a specialisation toward specific professions. This part of the curricula would be elaborated as a modular system, and different modules would be picked out to create training curricula for different specialities.

The advantages of such a system are many. First, it gives large-scale production advantages in the first and second part of the training. Second, under this system, it is easy to make possible necessary adjustments in the future, and a foundation for the concept of lifelong learning is provided. Third, the modules in the third part of the training can easily be adapted to fit into the adult retraining programmes. (See annex IV)

As stated earlier, for adult retraining a modular system based on the local labour market and the discussions in tripartite advisory committees could be recommended. It is important that the system is unified throughout the country. A strengthening of the capacity of the Methodological Centre of MOLSP is therefore necessary.

The need for staff development has also been mentioned earlier. Once again, the Methodological Centre, with its regional sub-centres could play an important role. One way of addressing this problem could be to develop the concept of distance education for upgrading. This would probably be a more cost-efficient way of upgrading, since it can include a large number of teachers and trainers, and since transport costs, allowances, etc. can be minimised.

The wage system for teachers and trainers must be examined. This is of course a matter of state policy and priorities. First, regular payment of salaries must be ensured. Second, a considerable general raise in pay should be considered. This would probably lead to fewer drop-outs of teachers and trainers, and give the staff a possibility of concentrating more on their professional activities - today, many teachers and trainers are forced to have a second job, which limits their ability to

perform at the training centres. This raise could be accompanied by an individualisation of the salaries, in order to promote innovation, elaboration of new study materials, etc.

Dissemination of study material, text books, etc., is a critical issue. The Methodological and the Information Centre of MOLSP should carry the main responsibility for this. Apart from the above mentioned measures to encourage the elaboration of study materials, it is recommended that Kyrgyzstan is included in inter-state dissemination programmes, through which material developed in primarily other NIS countries could be adapted to Kyrgyz conditions and distributed in the VET system.

The creation of an international network, with twinning activities between different schools and institutions, would also contribute to the general upgrading of the system. Such a network would aim to set in motion exchange of information, curricula, staff, and students with other countries, as well as to mobilise financial assistance. The national Observatories, once again, could play a part in the development of such schemes.

Establishing relevant links between the VET system, the Employment Service, and the labour market

A crucial issue for the efficiency of the state VET system is its relationship to the Employment Service and the ability to answer to the needs of today's and tomorrow's labour market. In the following section, some suggestions for ways of addressing this problem are presented:

It has consistently been demonstrated as being of critical importance that for retraining activities to become cost-effective, such activities must be based on strong and sustained institutional links between retraining systems and employers, in order to ensure that retraining programmes develop and adapt in response to labour market needs and avoid inappropriate investments in training. The links must be direct, with employers involved in the identification of training needs and the design of courses, as well as providing industrial exposure opportunities for teaching staff and places for trainees for on-the-job training.

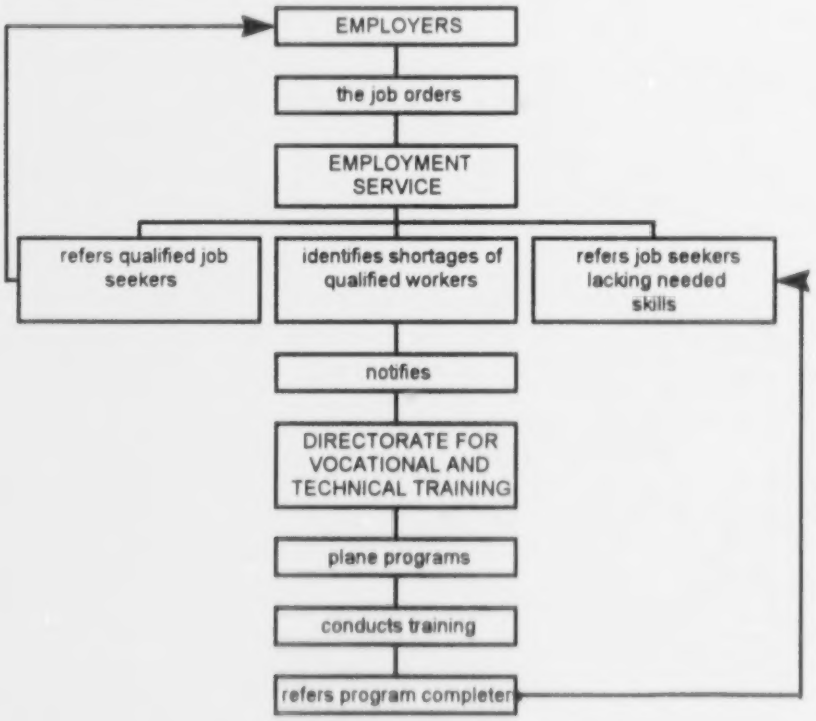
Tripartite advisory committees, including representatives of the Government or governmental institutions, employers (state and private) and workers at different grades at central and local levels could be one way of ensuring such links. The advisory committees created so far have, however, not functioned well. One of the reasons for this seems to be a lack of information and understanding of the usefulness of such committees by the employers. One way of addressing this problem is an information "campaign", aiming at the improving the understanding of the role of such advisory committees.

The task of the advisory committees could also be extended to include development of youth training curricula. Here, however, the state will probably play an overall key role, since this development includes decisions of a strategic and national kind.

The system of vocational orientation and career counselling has not been given enough support during recent years. An effectively functioning system of vocational

orientation, both during and after compulsory schooling, could improve the efficiency of initial vocational training and retraining. If the state VET system would consider the development of more individualised training curricula, both for youth and adults, common upgrading courses in vocational orientation for staff from ES and the VET system could improve the common understanding and rationalise the work of the different institutions.

The co-operation between ES and the state VET system in order to make the most efficient use of limited resources and to maximise the services provided has been stressed as important more than once. Different models and ways of co-operation are currently being developed and discussed in the framework of the on-going World Bank project, including both ES and DVTT. One of these models is presented on the following page.



The figure proposes a model for the flow of information and the referral of clients that could make up the main forms of co-operation between ES and DVTT. The model proposes that the needs of employers for skilled workers will be the primary influence on the operations of both departments. Information about these needs will flow from employers to ES and from ES to DVTT. ES will refer qualified workers to employers, and adults needing training to DVTT. Trainees who complete their programmes will be referred back to ES for placement in jobs.

Upon receipt of job orders, ES will consult its files of registered unemployed. These files will indicate the qualifications and experience required of the workers. Workers with the skills requested by the employers will be referred for job interviews. If a check of the files indicates no workers with the necessary skills or if none of the

referred workers is hired, ES will indicate on the job order that they are unfilled. Whenever the number of unfilled job orders for specific kinds of skills reaches a mutually agreed to level, ES will notify DVTT of employers' requests for skills that cannot presently be met; DVTT will use this information to plan its programmes.

It should be stressed that this model, as proposed by the World Bank programme, does not foresee, or rather does not include, a situation of competition in the retraining field. The model could however be adjusted to meet such a situation. Instead of notifying only DVTT, ES could call for a tender for different kind of training and retraining activities.

Another possibility to meet the market needs could be to develop apprenticeship training systems. As the International Labour Organisation (ILO) has pointed out in different surveys, an apprenticeship system can prove to be more cost-efficient than traditional vocational training. Furthermore, it has the potential to include a large number of young people, and to provide skills for students who do not wish to pursue traditional education and training. In this area, the "informal sector"[6] could play an important role. A system in which the apprentice pays a fee to the small enterprise at the beginning of his apprenticeship could be considered. The apprentice would then be given a small allowance - quite symbolic in the beginning - which gradually would increase as the apprentice's skills develop. In theory then, a reasonably skilled competent apprentice could earn several times the amount of the fee paid. In this way, the system would be largely self-financed. A combination of such a system and more traditional vocational training could also be considered. In such a case, ways of co-operation between VET institutions and small enterprises should be developed.

Financing the VET system

The most important and least easy to address problem; namely financing of the system, has been saved to the last part of this chapter. The basic problem is obviously the general financial problem with which the Kyrgyz state is struggling. Some of the more specific problems are:

It is the clearly expressed objective of state policy as far as initial vocational training (PTU) and adult retraining is concerned to make the system (i.e. DVTT) self-financed, with no budget allocation from republican or local funds. When studying these declarations from the Government, and during discussions with DVTT staff, one gets the impression that DVTT is striving towards an untraditional coalition of German experience in youth training and Swedish experience in adult retraining. (This is in fact not surprising, since these countries have so far given the most input of experience to the VET system of Kyrgyzstan. In this context, the Turkish experience much resembles the German). Thus it is foreseen that enterprises will cover a considerable part of the cost of youth training, whereas ES will cover the cost of adult retraining. This approach can not be said to be very realistic. First, the enterprises in general have not shown great willingness to contribute to the financing of training. On the contrary, many enterprises today demand money for

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[6] This term is used by ILO to define the sector of the economy which comprises small enterprises.

allowing trainees to practice at their premises. Second, the concept of letting ES pay for adult retraining can help to make the system more cost-efficient if competition is encouraged. The financial situation of ES is however not strong enough to cover all costs for retraining in a large scale, especially after the abolishment of the Employment Fund (see also below).

Other ways of financing the DVTT system have been mentioned earlier. The approach of letting the trainees pay for the training has the obvious disadvantage of excluding considerable minorities of youth from training. This will eventually turn out to be more costly for society. The other option, selling goods and services produced by the centres during or outside the training process, also has certain disadvantages. First, it threatens to turn the training process into a production process. A GTZ survey has indicated that the income limit for such production is about 10% of the overall school budget. Above this level it is questionable if the schools can live up to their education and training tasks. Second, the production and selling of goods and services can be seen as unfair competition with other enterprises, which to a certain extent will hamper the development of small and medium-sized enterprises.

The conclusion is that the state should provide enough funding to ensure a well functioning VET system.

Until recently, means from the Employment Fund were used to cover the costs of retraining. From late 1995, when the Employment Fund was merged into the Social Insurance and Pension Fund, means have been taken from this source. As stated earlier, priority is however given to the payment of pensions and unemployment benefits - active labour market measures play a secondary role. An employment fee of 2% is still taken from employers' wage funds. The system with Employment Funds can in general be said to be good in times of high employment. When the unemployment rate rises, however, the system has certain disadvantages, since it has to spend more money to meet the problems of unemployment and at same time gets less income, since the income is linked to the employers' wage funds. Furthermore, employers become less willing to cover additional training costs - they are already supposed to cover retraining through their payment to the Employment Fund. Once again, the conclusion is that at least part of the costs of ES, including retraining, should be covered by the state budget.

A possible way of finding alternative financing could be a development of the apprenticeship system (see above).

Another possible way of finding additional financing for the system, at least at an initial stage, is international co-operation, including loans and grants from donors. The World Bank project in the retraining sector has already been mentioned. The Asian Development Bank is currently preparing a major loan to Kyrgyzstan for addressing issues in the educational system. The bulk of this loan will be spent on development of the compulsory education system. Part of it might however cover some issues of the VET system. It is questionable whether big loans should be used to develop text books, study material, external technical assistance etc., or if a combination of loans for hardware and grants for software is to be preferred. There is no doubt that there is a need for international co-operation in different areas of the VET system. The national Observatories could become one tool, with the help of which the priority areas for such co-operation could be identified.

Future trends

The VET system in Kyrgyzstan is today facing some very crucial problems, and unfortunately, these problems are not likely to be overcome but worsened in the foreseeable future. The programme for strengthening education and training in Kyrgyzstan during the coming five years, "BILIM", is an ambitious platform for reforming the education system. The following objectives are mentioned in the BILIM programme, and are supposed to be achieved by the year 2000:

1. Securing access to education, through:

- social and financial support, especially for children/students from poor families or with special needs;
- development of a legal basis, guaranteeing social safety for students in a market economy;
- preserving state order of training of specialists; and
- implementing a system of credits for higher education studies;

2. Improvement of the efficiency of the education system, through:

a) Change of the management and monitoring system:

- elaboration and implementation of an all-republican computerised information system, with co-ordination by MOE;
- change from a controlling to a monitoring role of the state; creation of expert councils, support for self-government of schools;
- implement a system of multi-level teacher training;
- upgrading of administration and management staff;

b) Improvement of the life and working conditions of the employed in the education system:

- Payment of salaries in time;
- Implementation of a system of salaries with individual differences;
- Elaboration of a program for training and continual upgrading of staff;

c) Technical and methodological equipping of the education system:

- Computerisation and improvement of technical equipment in all schools;
- Securing necessary conditions for publication and distribution of text books and learning material;
- maintenance, refurbishment and building of premises;
- Reforms of curricula for specific specialities

How will this programme be financed? BILIM does not mention anything of additional state funding to the education system. Instead the following main sources are mentioned:

- Development of different forms of paid education;
- Encouraging international help, grants and credits;
- Development of production and other forms of commercial activities by the schools and institutions.

As discussed earlier, none of these sources are without disadvantages, and it must be questioned, whether they will be able to cover all foreseen activities.

A study of the concrete short term objectives for 1996, the first year of BILIM, does not alter the view that the programme as a whole seems somewhat over-ambitious:

- Building of 8 new schools;
- Creation and launching of a national centre for tests (in connection with admission to higher education);
- Carrying out the first phase of computerisation of schools and state universities and higher education institutions;
- Preparation of documents for start of joint work with Turkey, with the aim of mutual recognition of education diplomas

This proposal for 1996 does in fact leave virtually all tasks to the remaining four years of the programme.

Overall, however, it is positive that education has become a priority area of the state policy. If the question of financing can be solved in a satisfying way, there is a good chance that, given the existing potential of the system, the education system in general and the VET system in particular can become an important tool for Kyrgyzstan and its economy.

VI. Recommendations

As a conclusion from the overview and discussion in chapter five, it is the recommendation of this paper to concentrate international co-operation activities in the vocational education and training field in four specific areas:

A) Institutional reform of the VET system

Co-operation programmes and projects should concentrate on:

- Strengthening of the administration of the VET system; staff development
- Creation of a management information system;
- Improvement of internal co-ordination of the VET system
- Reform of the legal basis of VET

B) Modernisation and upgrading of the VET system.

Recommended programme objectives:

- Development and modernisation of training curricula for youth and adults;
- Development and modernisation of study material for youth and adults;
- A staff development programme, including upgrading programme for teachers and trainers. The use of distance education should be considered;
- Dissemination of study material and curricula;
- Creation of an international network for exchange of information

C) Strengthening links between the VET system and the Labour Market.

Recommended programme objectives:

- Development of a system for labour market analysis;
- Development and modernisation of the system of vocational orientation and career counselling;
- Policy advice for strengthening of links between the VET system, the Employment System and social partners;
- Development of an apprenticeship training system.

D) Financing of the VET system

Recommended programme objectives:

- Policy advice for strengthening the financial situation of the VET system. Analyses of different possible financing sources and the consequences of the use of them.

Sources

Education and training master plan, prepared for the Asian Development Bank by ABU, GOPA, GTZ, Bishkek, February 1996

BILIM, Presidential programme on development of the education sector, Bishkek, March 1996

Technical Proposal, Quarterly Reports, Development programme for adult education and retraining, World Bank Social Safety Net Project

Information sheets, issued by the Employment Service in co-operation with GTZ, monthly and quarterly, Bishkek 1996

Country report, 1st quarter 1996, Economist Intelligence Unit

Country report, 2nd quarter 1996, Economist Intelligence Unit

The Europa World Year Book 1995, Volume II, Rochester 1995

Politisches Lexikon GUS, second edition, Munich 1993

Annex I Information System Overview, Department For Training Of Workers And Entrepreneurs

The following pages set forth the contents for an information system being developed for the Department for Training of Workers and Entrepreneurs (DTWE), Ministry of Labour and Social Protection. Kyrgyz Republic.

The system is presented as a sat of files containing information related to the operation of the Department. Each of these files has one or more screens with subfiles of related information. For most of the files there is a hierarchy. The primary hierarchy is national totals for vocational schools. regional (oblast) totals. and individual schools. Other hierarchies are national totals for adult training centers that aggregate data for individual centers and the same for entrepreneur training centers.

These hierarchies assume that the final system will have an automatic component that will change the files higher in the hierarchy when a change is made in the lower levels. For example. on a quarterly basis each of the vocational schools will enter the number of students enrolled in each of the occupational specialities each school teaches. It is anticipated that the files from the individual schools in an oblast will be forwarded to the oblast office. There the data from the separate schools will be entered, and the oblast totals will be automatically calculated for each of the specialities. The oblast totals will then be forwarded to the central office where the data will be used to automatically calculate the national totals.

Lower-level hierarchies are also assumed at the central office, regional office, individual school, and -training center levels. Here it is assumed that any change in the records of individual staff members will update the totals for the offices, schools and centers.

File: Central Office (CO)

Screen CO1 (Each screen in a file is identified by the first letters of the title of the file and numbered sequentially.)

Number of Staff (The totals in this section will be automatically updated whenever there is a change in the records of individual staff members.)

General managers	Statisticians	General clerks
Section managers	Accountants	Maintenance workers
Methodologists	Secretaries	Security workers

Screen CO2
Individual Records (A separate record will be available for each current staff member, filed in alphabetical order.)

Last name: First name: Middle name:

Date of birth: / / Gender: ❑ Male ❑ Female Date hired: / /

Ethnicity: ❑ Kyrgyz ❑ Russian ❑ Other (specify)

Current title: Current salary:

Category of title:

❑ General manager	❑ Statistician	❑ General clerk
❑ Section manager	❑ Accountant	❑ Maintenance worker
❑ Methodologist	❑ Secretary	❑ Security worker

Areas of specialization:

Qualifications:

Formal education

In-service, continuing education: (For five most recent participations)

Dates attended
Institution
Topics

Screen C03

Financial Information

Estimated and actual expenditures for academic year by major budget categories
Actual expenditures year to date

Files: Regional Offices

(The same information as indicated for the central office will be available for each regional office. The screens for each file will be identified as JAI-3 (Jalal-Abad), IKI-3 (Issyk-Kul), NI-3 (Naryn), O1-3 (Osh), TI-3 (Talas), C1-3 (Chui), and B1-3, (Bishkek).

File: National Totals Vocational Schools (NTVS)

(The totals in this section will be automatically updated whenever there is a change in the records for separate vocational schools.)

Screen NTVS1
Number of schools
Lyceums
Vocational Schools

Occupational specialities currently being taught (An alphabetic list of all specialities being taught will be inc1uded with the following information for each speciality.)

Number of programs
Number of current students
Number of students paying tuition
Number of students withdrawing prior to graduation
Number of students discharged for disciplinary reasons
Number of graduates by skill level
Skill level 2
Skill level 3
Skill level 4
projected number of students next academic year

Screen NTVS2
Staff

Directors
Assistant directors
Teachers by specialities
Foremen
Maintenance workers
Security Workers

Screen NTVS3
Financial information
Estimated expenditures for academic year by major budget categories
Sources of estimated expenditures
State budget
Regional budget
Employment Service fees for training

Screen NTVS4
Productivity information (An alphabetic list of all products, including agricultural products, will be included with the following information for each product.)
Type of product
Sales
Profits
For agricultural schools:
Land plots in production
Counts of livestock and poultry

Screen NTVS5
National Language
Number of schools with all instruction in Kyrgyz
Number of schools with instruction in Kyrgyz and Russian

Screen NTVS6
Upbringing Activities (An alphabetic list of all activities will be included with the following information for each activity.)

Type of activity
Number of students participating

Screen NTVS7
Infringements of the law by type for the past 5 years (An alphabetic list of all crimes will be included with the following information for each crime.)

Type of crime
Actions taken (An alphabetic list of actions will be included)

Special vocational schools for delinquent young people under 18 years of age.

Files: Oblast Totals (OTVS)

(Identical to national totals presenting total figures for all vocational schools in each oblast and Bishkek City. The identification letters for the oblasts are the same as for the regional offices presented above.)

FIles: Separate Schools (VS1 to N)

Screen VS1-1 (There will be an identical set of screens for each vocational schools in numerical order VS1. VS2 . . . VS-N) ,

School number .
School name:
School address
Status: ❑ Lyceum Date of last certification as lyceum / /
❑ Vocational school

Occupational specialities currently being taught (An alphabetic list of all specialities being taught will be included with the following information for each speciality.)

Number of current students
Number of students paying tuition
Number of students withdrawing prior to graduation
Number of students discharged for disciplinary reasons
Number of graduates by skill level (annual for past 5 years)
Skill level 2
Skill level 3
Skill level 4
Projected number of students next academic year

Screen VS1-2
Staff (Names will be listed for all staff and automatically changed when there is a change in the individual records.)

Director:
Assistant directors:
Teachers:
Foremen:
Accountant:
Secretary:
General clerk:.
Maintenance workers:
Security Workers:

Individual Records (A separate record will be available for each current staff member, filed in alphabetic order

Last name: First name: Middle name:

Date of birth: / / Gender: ❑ Male ❑ Female Date hired: / /

Ethnicity: ❑ Kyrgyz ❑ Russian ❑ Other (specify)

Current title: Current salary:

Category of title:

❑ Director ❑ Foreman ❑ General clerk
❑ Assistant director ❑ Accountant ❑ Maintenance worker
❑ Teacher ❑ Secretary ❑ Security worker

Areas of specialization:

Qualifications:

Formal education

In-service, continuing education: (For five most recent participations)

Dates attended
Institution
Topics

Screen VS1-3

Financial information

Estimated expenditures for academic year by major budget categories
Sources of estimated expenditures
State budget
Regional budget
Employment Service fees for training
Actual expenditures year to date

Screen VS1-4

Productivity information (An alphabetic list of all products, including agricultural products will be included with the following information for each product.)

Type of product
Sales
Profits
For agricultural schools:
Land plots in production
Counts of livestock and poultry

ScreenVS1-5

National Language

Classes in which instruction is in Kyrgyz
Classes in which instruction is in Kyrgyz and Russian

Screen VSl-6 Upbringing Activities (An alphabetic list of all activities will be included with the following information for each activity.)

Type of activity
Number of students participating

Screen VS1-7
Infringements of the law by type for the past 5 years (An alphabetic list of all crimes will be included with the following information for each crime.)

Type of crime
Actions taken (An alphabetic list of actions will be included.)

File: National Totals Adult Training and Retraining (ATR)

Screen ATR1

Authorizing Documents (Summaries of documents authorizing and regulating the activities of D TWE with regard to adult training and retraining.)

Screen ATR2 -

National Totals (The totals in this section will be automatically updated whenever there is a change in the records for separate adult training centers..)

Number of centers providing adult training and retraining

Occupational specialities currently being taught (An alphabetic list of all specialities being taught will be included with the following information for each speciality.)

Number of programs
Number referred by Employment Service.
Number enrolled
Number completing program
Number placed in employment

Number of staff involved in adult training and retraining (The totals in this section will be automatically updated whenever there is a change in the records of individual staff members.)

Directors
Assistant directors
Teachers
Foremen

Screen ATR3
Financial information

Estimated expenditures for academic year by major budget categories
Sources of estimated expenditures
State budget
Regional budget
Employment Service fees for training
Actual expenditures year to date

Files: Separate Adult Training Centers (ATC1-N)

Screen ATC1-1 (There will be an identical set of screens for each adult training center in numerical order A TC1 , A TC2 . . . A TCN)
Center number:
Center name:
Center address:

Unemployment statistics for the areas served by center

Occupational specialities currently being taught (An alphabetic list of all specialities being taught will be included with the following information for each speciality.)

Number referred by Employment Service
Number enrolled
Number completing program
Number placed in employment -

Screen ATC1-2 .
Staff

Director: (Name will be listed.)
Assistant directors: (Names will be listed.) -
Teachers: (Names will be listed.)
Foremen: (Names will be listed.)

Individual Records (A separate record will be available for each currant Staff member filed in alphabetic order.)

Last name: First name: Middle name:

Date of birth: / / Gender: ❑ Male ❑ Female Date hired: / /

Ethnicity: ❑ Kyrgyz ❑ Russian ❑ Other (specify)

Current title: Current salary:

Category of title:

❑ Director	❑ Foreman	❑ General clerk
❑ Assistant director	❑ Accountant	❑ Maintenance worker
❑ Teacher	❑ Secretary	❑ Security worker

Areas of specialization:

Qualifications:
Formal education
In-service, continuing education: (For five most recent participations)
Dates attended
Institution
Topics

Screen ATCl-3
Financial information
Estimated expenditures for fiscal year by major budget categories
Sources of estimated expenditures
State budget
Regional budget -
Employment Service fees for training
Actual expenditures year to date

Screen ATCl-4
Equipment at center (A listing of equipment used in adult training will be included.)

Instructional materials (A listing of instructional materials used in adult training will be included.)

File: National Totals Entrepreneur Training (ET)

Screen ET1
Authorizing Documents (Summaries of documents authorizing and regulating the activities of DTWE with regard to entrepreneur training.)

Screen ET2
National Totals (The totals in this section will be automatically updated whenever there is a change in the records for separate entrepreneur training centers..)

Number of centers providing entrepreneur training-

Entrepreneur programs currently being taught (An alphabetic list of all programs being taught will be included with the following information for each speciality.)

- Number of programs
- Number referred by Employment Service
- Number enrolled
- Number completing program
- Number starting own businesses

Staff involved in entrepreneur training (The totals in this section will be automatically updated whenever there is a change in the records of individual staff members.)

- Directors
- Assistant directors
- Teachers
- Foremen

SCREEN ET3
Financial information

- Estimated expenditures for academic year by major budget categories
- Sources of estimated expenditures
  - State budget
  - Regional budget
  - Employment Service fees for training
- Actual expenditures year to date ,

Files: Separate Entrepreneur Training Centers (ETC1-N)

Screen ETC1-1 (There wil! be an identical set of screens for each adult training canter in numerica1 order ETC1, ETC2. . . ETCN)
Center number:
Center name:
Center address:

Unemployment statistics for the areas served by center

Entrepreneur programs currently being taught (An alphabetic list of all programs being taught will be included with the following information for each speciality.)

- Number referred by Employment Service
- Number enrolled
- Number completing program
- Number starting own businesses

Screen ETC1-2
Staff
Director (Name will be listed.)
Assistant directors: (Names will be listed.)
Teachers: (Names will be listed.)
Foremen: (Names will be listed)

Individual Records (A separate record will be available for each current staff member filed in alphabetic order.)

Last name: First name: Middle name:

Date of birth: / / Gender: ❑ Male ❑ Female Date hired: / /

Ethnicity: ❑ Kyrgyz ❑ Russian ❑ Other (specify)

Current title: Current salary:

Category of title:

❑ Director	❑ Foreman	❑ General clerk
❑ Assistant director	❑ Accountant	❑ Maintenance worker
❑ Teacher	❑ Secretary	❑ Security worker

Areas of specialization:

Qualifications:
Formal education
In-service, continuing education: (For five most recent participations)
Dates attended
Institution
Topic

Screen ETC1-3
Financial information
Estimated expenditures for fiscal year by major budget categories
Sources ofestimated expenditures
State budget
Regional budget
Employment Service fees for training
Actual expenditures year to date

Screen ETC1-4

Equipment at center (A listing of equipment used in entrepreneur training will be included.)

Instructional materials (A listing of materials used in entrepreneur training will be included)

File: Normative Documents (ND) .

(This file sha11 contain current information that will be updated whenever new documents are issued. The structure of the file (chronological or topical) will be determined by reviewing the documents it shall contain.)

Summaries of documents that authorize and regulate the operation of the Department.

Policy decisions issued by the Ministry Collegium and DTWE

File: Working Plans of the Ministry and Department (WP)

(This file shall contain current information that will be updated whenever new documents are issued.)

Screen WP1
Annual plans

Screen WP2
Quarterly plans

Screen WP3
Monthly plans

File: Information on In-service Training Opportunities (TO)

(This file shall contain information on all forthcoming in-service opportunities, updated as new in-service training is scheduled. The structure will be chronological.)

Screen TO1

Scheduled lectures, seminars, and courses relevant to vocational twining, including sponsor, location, dates, topic. presenters, and fees, if applicable

Annex II List of Existing Vocational Training Centers under the Ministry of Labour

School Number and situation	Professions trained	Duration of training
1. Jalal-Abad	Tailor	2 years
	Welder (acetylene and electricity)	10 months
	Technician/Mechanic	3 years
	Bank cashier	10 months
	Tanner, driver	10 months
	Mechanic (automotive)	3 years
	Book-keeper, incl. PC usage	3 years.
2. Karakol	Tailor	2 years
	Baker, dough-mixer	10 months
	Bee-keeper	10 months
	Classificator of leather and wool	2 years
	Master of folk handicraft	2 years
	Seamstress. dressmaker, knitter	2 years
	Senior in agroproduction	2 years
	Welder (acetylene and electricity)	2 years
	Driver, mechanic (automotive)	2 years
3. Bishkek	Mechanic (radio and electronic)	10 months
	Fitter, mechanic (electric equipment)	10 months
	Miller with knowledge of turning	10 months
	Assembler of electronic equipment	10 months
	Type-setter (by hand)	10 months
	Printer	10 months
	Bookbinder	10 months
	Type-setter (by machines)	10 months
4. Bishkek	Welder (acetylene and electricity)	10 months
	Welder, bricklayer, assembler	10 months
	Assembler of sanitary systems	10 months
	W elder (by hand); concrete assembler	2 years
	Carpenter	2 years
	Assembler of sanitary systems, welder	2 years
	Welder (acetylene and electricity)	2 years
	Tiler, bricklayer, layer of mosaics	2 years
5. Bishkek	Builder, carpenter	3 years
	Tiler, plasterer, layer of mosaics	3 years
	Do and painter	10 months
	Carpenter, turner for joiner's benches	10 months
6. Kok-Oy, Talas oblast	Driver, welder (gas and electricity)	2 years
	Book-keeper for agricultural prod.	10 months
	Book-keeper for agricultural prod.	2 years
	Senior in agricultural production	3 years .
	Cook; national cuisine	1 year 6 months
	Seamstress, worker on sewing machines	2 years
	Tailor	10 months

7. Kyzyl-Kiya, Osh oblast	Driver, mechanic (automotive)	10 months
	Electrical mechanic	3 years 6 months
	Seamstress, worker on sewing machines	10 months
	Seamstress, worker on sewing machines	2 years
	Machine operator, CNC operator	2 years
	Mechanic (automotive), driver	2 years
8. Kyzyl-Kiyas Osh region	Book-keeper agriculture, includ. PCusage	3 years
	Book-keeper in agriculture	10 months
	Senior in agricultural production	3 years
	Business-man	3 years
	Mechanic, technician	3 years
	Salesman of food and other goods	10 months
	Cook; national cuisines incl. SME skills	10 months
	Mechanic/technician for irrigation	3 years
	Senior in maintenance of electrical household Machines	10 months
	Shoemaker	2 years
	Seamstress, worker on sewing Machines	2 years
9. Burgandu, Jalal-Abad oblast	W elder (gas and electricity)	10 months
	Salesman of food and other goods	10 months
	Master of folk handicraft	10 months
	Master in agricultural prod. (farmer)	2 years
10. Bishkek	Baker, dough-mixer	10 months
	Secretary; typist	8 months
	Cook; confectioner with SME skills	1 year 8.5 months
	Confectioner for public catering	10 months
	Office worker - typist	8 months
11. Osh	Carpet maker (by hand)	10 months
	Senior tailor	2 years
	Tailor	10 months
12. Osh	Mechanic (radio and electronic)	10 months
	Carpenter	2 years
	Tiler, bricklayer, layer of mosaics	10 months
	S ecretary, typist	8 months
	Welder (gas and electricity)	10 months
	Bricklayer, concrete worker. welder	2 years
	Welder (gas and electricity)	2 years ,
	Tiler, bricklayer. layer of mosaics	10 months
13. Juan-Tjube, Talas oblast	Tailor	2 years
	Book-keeper for agriculture	10 months
	Classificator of leather and wool	2 years
	Salesman of food and other goods	10 months
	Senior in maintenance of electrical household Machines	10 months
	Senior in agricultural prod. (farmer)	2 years
	Tailor	10 months

14. Karakol	Bulldozer driver	10 months
	Assembler of sanitary systems; welder	3 years
	Carpenter	2 years
	Electrician	3 years
	Book-keeper for industrial prod.	3 years
	Cook; national cuisine with SME skills	10 months
	Book-keeper for industrial prod.	2 years
	Worker in service sector	2 years
	T our conductor	2 years
	Cook for national cuisine	2 years
	Bulldozer driver	2 years
15 Kochynor, Naryn oblsat	Classificator of leather and wool	3 years
	Fitter of electrical systems	10 months
	Senior in agricultural production	10 months
	Cook; national cuisine with SME skills	10 months
	Senior in agricultural production	2 years
	Fitter of electrical systems; driver	2 years
	Seamstress, worker on sewing Machines	3 years
	Cook; national cuisine; owner of rest.	2 years
16 Osh	Electrician; maintenance of P C s	3 years
	Electrician, maintenance of electrical equipment	1 year 6 months
	PC operator	10 months
	Embroiderer	3 years
	Embroiderer	10 months
	Weaver	3 years
	Weaver	10 months
	Mechanic/Technician	3 years
	Seamstress; tailor	1 year 6 months
	Mechanic. maintenance of electrical and electronical equipment	1 year 6 months
	Technician/technologist for embroider	3 years 6 months
	Technician/technologist for weaving	3 years 6 months
	Weaver, seamstress	2 years
	Embroiderer. seamstress	2 years
17. Bishkek	Senior tailor	2 years
	Weaver, seamstress -	2 years
	Embroiderer. seamstress	2 years
18. Bishkek	Shoe-maker	10 months
	Shoe-maker, including repair	3 years
	Shoe parts assembler, conveyer operator	3 years
	Seamstress, worker on sewing Machines	10 months
	Tailor	3 years

19. Altymyshev, Chui oblast	Crane operator	10 months
	Operator of excavator	10 months
	Seamstress, worker on sewing Machine	10 months
	Welder (gas and electricity); driver	2 years
	Tractor driver. operator of irrigation Machines	2 years
	Technologist in pharmacology field	10 months
	Crane operator	2 years
	Mechanic; irrigation Machines	2 years
	Seamstress, worker on sewing Machine	2 years
20. Bishkek	Welder (gas and electricity); repair of heavy and light vehicles	3 years
	Fitter of electrical systems	3 years
	Driver of trolley buses	6 months
	Grape breeder	3 years
	Technologist in pharmacology field	3 years
	Flower breeder	3 years
	Senior flower breeder. florist	3 years
21. -Korgon~ Jalal-Abad obl.	Taylor	3 years
	Senior tailor	2 years
	Book-keeper. agriculture incl. PC usage	3 years
	Welder (gas and electricity)	10 months
	Welder (gas and electricity); driver	2 years
	Senior in agricultural production	3 years
	Mechanic (automotive)	3 years
22. Balykchi, Issyk-Kul oblast	Computer operator	10 months
	Electro-mechanician	2 years
	Cook, waiter	10 months
	Mechanic, maintenance of electrical and electronical equipment	2 years
	Mechanic, maintenance of electrical household Machines	2 years
23. Chui-Tkmok, Chui oblast	Mechanic, automotive	10 months
	Painter, stucco worker	10 months
	Carpenter	2 years
	Welder (gas, electricity)	10 months
	Welder (gas and electricity).driver	2 years
	Carpenter	10 months
	Painter, stucco worker	2 years
	Book-keeper for industrial production	10 months
	Mechanician; repairing of heavy vehicles	2 years
24. Min-Kush, Naryn oblast	Electrician; maintenance of electrical equipment .	10 months
	Bulldozer operator	2 years
	Excavator operator	2 years
	Mechanician, repairing of light vehicles; driver	2 years

25. Kant, Chui oblast	Electrician; fitter. maintenance of computers . ,	3 years
	Welder (acetylene and electricity)	3 years
	Mechanic, measuring instruments	10 months
	Carpenter	2 years
	Mechanic; automotive	3 years
	Senior in fu ture and carpentry production	3 years
	Mechanic; maintenance of electrical household Machines	3 years
	Small business entrepreneur	3 years
	Painter, stucco worker	2 years
	Tailor	10 months
26. Chaek, Naryn oblast	Bee-keeper.driver	1 year
	Master of folk handicraft	2 years
	Senior in agricultural prod. (farmer)	2 years
27. Bishkek	Machine operator. CNC operator	3 years
	Mechanic, automotive and maintenance of equipment	3 years
	Welder (gas and electricity); automotive	3 years
	Mechanic, automotive	3 years
	Mechanic, automotive	10 months
	Machine operator; mechanic (auto rep,.)	3 years
	Welder (gas and electricity). auto repair of foreign cars	3 years
28. Suu, Chui oblast	Fruit and vegetable breeder	2 years
	Veterinary assistant	10 months
	Welder (gas and electricity).driver	3 years
	Senior in agricultural production	3 years
	Mechanic, maintenance of electrical household Machines	10 months
	Mechanic (automotive); welder	10 months
	Fitter of rural electrical systems; driver	2 years
29. Kara-Kuldja, Osh oblast	Seamstress, worker on sewing Machine	10 months
	Tractor and car driver. mechanic	2 years
	Bee-keeper.driver	1 year
	Seamstress, worker on sewing Machine	2 years
30. Dostuk , Naryn oblast	Seamstress, worker on sewing Machine	10 months
	Bee-keeper	10 months
	Bee-keeper. driver	2 years
	Master in folk handicraft	10 months
	Master in folk handicraft	2 years
	Senior in agricultural production	2 years
31. Kulundu, Osh oblast	Seamstress, worker on sewing Machine	10 months
	Book-keeper. agricultural production	10 months
	Senior mechanic for agriculture	3 years 6 months
	Senior in agricultural production	3 years 6 months
	Mechanic (automotive)	3 years

32. At-Bashi, Naryn oblast	Tractor and car driver. mechanic	2 years
	Bee-keeper, driver	2 years
	Classificator of leather and wool	2 years
	Farmer. cattle breeder	10 months
	Tractor and car driver (categories B, C)	10 months
	Senior in agricultural production	2 years
33. Markaz, Osh oblast	Carpet maker (by hand)	10 months
	Book-keeper, agricultural production	10 months
	Salesman of goods; driver	10 months
	Senior in agricultural prod. (farmer)	2 years
	Fitter of electrical equipment for agricultural production; driver	2 years
34. Samarkandyk, Osh oblast	Seamstress, worker on sewing Machine	10 months
	Tractor and car driver; mechanic	2 years
	Welder (gas and electricity)	10 months
	Mechanic; maintenance of radio and television equipment	2 years
	Cook; national cuisine; restaurant owner	2 years
35.Novo-Nikolaevka, Osh oblast	Crane operator	10 months
	Carpenter	2 years
	Senior in agricultural production	10 months
	Cook; national cuisine with SME skills	10 months
	Worker in the service field	2 years
	Senior in agricultural prod. (farmer)	2 years
	Crane operator	2 years
36. Vinsovkhoz, Jalal-Abad obl.	Cook; national cuisine	3 years
	Senior tobacco breeder	10 months
	Tractor and car driver. mechanic	2 years
	Book-keeper, agricultural production	10 months
	Operator. storage of fruits and veget.	10 months
	Book-keeper agricultural production	2 years
	Senior in agricultural production	3 years
	Classificator of tobacco	10 months
	Cook; national cuisine with SME skills	10 months
	Senior in agricultural prod. (farmer)	2 years
	Cook; national cuisine	2 years
37. Leninskoe, Chui oblast	Manager	10 months
	Farmer. cattle-breeder	10 months
	Manager of small hotel	2 years
	Senior in agricultural prod. (farmer)	2 years
38. Karaul, Osh oblast	Carpenter	2 years
	Fitter of rural electrical systems	10 months
39. Toktogul, Jalal-Abad oblast	Carpenter	2 years
	Senior in agricultural production	10 months
	Master in folk handicraft	10 months
	Master in folk handicraft	2 years
	Senior in agricultural prod. (farmer)	2 years

40 Ak-Talaa, Naryn oblast	Tractor and car driver. mechanic	2 years
	Classificator of leather and wool	3 years
	Book-keeper, agricultural production	10 months
	Senior in agricultural production	3 years
	Senior in agricultural production	3 years
	Classificator of leather and wool	2 years
	Master in folk handicraft	10 months
	Senior in agricultural prod. (farmer)	2 years
	Senior in agricultural production	2 years
41. Kluchevka, Talas oblast	Tractor and car driver. mechanic	2 years
	Tractor and car driver (categories B,C)	10 months
	Tailor	10 months
42. Temirovka, Issyk-Kul obl.	Cook; national cuisine; restaurant owner	2 years
	Cook; national cuisine with SME skills	10 months
	Master in folk handicraft	10 months
	Excavator operator	2 years
43 Jangi-Jer, Chui oblast	Cook; national cuisine; restaurant owner	2 years
	Tractor and car driver. mechanic	2 years
	Salesman of food and other goods	10 months
	Senior in agricultural prod. (farmer)	2 years
	Tractor driver. tractor mechanic	10 months
	Seamstress, worker on sewing Machine	2 years
44. Daraut-Korgon, Osh oblast	Classificator of leather and wool, driver	10 months
	Senior in agricultural prod. (farmer)	2 years
45. Kazarman, Jalal-Abad obl.	Bulldozer driver	10 months
	Tractor and car driver. mechanic	2 years
	Welder (gas and electricity). driver	2 years
	Classificator of leather and wool	10 months
	Carpenter. driver	10 months
	Senior in agricultural prod. (farmer)	2 years
	Seamstress, worker on sewing Machine	2 years
46. Kanysh-Kiya, Jalal-Abad oblast	Tractor and car driver. mechanic	2 years
	Master in folk handicraft	10 months
	Senior in agricultural prod. (farmer)	2 years
	Tractor driver. tractor mechanic	10 months
47. Baitik, Chui oblast	Cook; national cuisine, restaurant owner	2 years
	Tractor driver (3rd class)	10 months
	Tractor and car driver. mechanic	2 years
	Bee-keeper. driver	1 year
	Master in folk handicraft	10 months
	Senior in agricultural prod. (farmer)	2 years
48. Isfana, Osh oblast	Carpenter	2 years
	Fitter of electrical systems in the agricultural field; driver	10 months
	Cook; national cuisine with SME skills	10 months
	Brick layer, concrete worker, welder	2 years
	Seamstress, worker on sewing Machine	2 years

49. Epkin, Chui oblast	Driver. mechanic (automotive)	10 months
	Tractor and car driver. mechanic	2 years
	Cook; national cuisine with SME skills	10 months
	Senior in agricultural prod. (farmer)	2 years
	Cook; national cuisine	2 years
50 Ottuk, Naryn oblast	Seamstress, worker on sewing Machine	10 months
	Tractor and car driver. mechanic	2 years
	Master in folk handicraft	2 years
	Tractor and car driver (categories B, C)	10 months
	Senior in agricultural prod. (farmer)	2 years
51. Kok-Debe, Talas oblast	Salesman of food and other goods	10 months
	Book-keeper, agricultural production	10 months
	Senior in agricultural prod. (farmer)	2 years
	Tailor	10 months
52. Seydi-Kum, Jalal-Abad oblast	Seamstress, worker on sewing Machine	10 months
	Senior in agricultural production	10 months
	Senior in agricultural prod. (farmer)	2 years
53. Kyzyl-Tuu, Jalal-Abad oblast	Bricklayer, cOncrete worker ;driver	10 months
	Seamstress, worker on sewing Machine	10 months
	Senior in agricultural prod. (farmer)	2 years
54. Kyrgyz-Ata, Osh oblast	Tractor and car driver. mechanic	2 years
	Mechanic for cattle-breeding	2 years
	Book-keeper, agricultural production	10 months
	Book-keeper agricultural production	2 years
	Business-man	2 years
	Senior in agricultural production	10 months
	Seamstress, worker on sewing Machine	2 years
55. Barskoon, Issyk-Kul oblast	Carpenter	2 years
	Cook, pastry-maker	10 months
	Tractor and car driver. mechanic	2 years
	Classificator of leather and wool; driver	10 months
	Master in folk handicraft	2 years
	Carpenter. driver	10 months
	Senior in agricultural prod. (farmer)	2 years
	Seamstress, worker on sewing Machine	2 years
56. Milyanfan, Chui oblast	Tailor	2 years
	Tractor and car driver. mechanic	2 years
	Senior in agricultural prod. (farmer)	2 years
	Tailor	10 months
57. Batken, Osh oblast	Tractor and car driver; mechanic	10 months
	Senior in agricultural construction	2 years
	Book-keeper, agricultural production	10 months
58. Madaniyat, Osh oblast	Tractor and car driver; mechanic	2 years
	Fitter of electrical systems in the agricultural field; driver	10 months
	Seamstress, worker on sewing Machines	2 years

59. Yuvash, Osh oblast	Seamstress, worker on sewing Machine	10 months
	Tractor and car driver; mechanic	2 years
	Welder (gas and electricity);driver	2 years
	Fitter of electrical systems in the agricultural field; driver	10 months
	Book-keeper, agricultural production	2 years
	Senior in agricultural production	10 months
	Salesman of goods ;driver	10 months
	Seamstress, worker on sewing Machines	2 years
60. Le skoe, Jalal-Abad obl.	Fitter of electrical system in rural areas	10 months
	Book-keeper, agricultural production	10 months
	Book-keeper, agricultural production	2 years
	Senior in agricultural prod. (farmer)	2 years
	Seamstress, worker on sewing Machine	2 years
61. Iskra, Chui oblast	Book-keeper, agricultural production	10 months
	Book-keeper, agricultural production	2 years
	Senior in agricultural production	10 months
	Senior in agricultural prod. (farmer)	2 years
	Cook; national cuisine, restaurant owner	2 years
62. Kurshab, Osh oblast	Seamstress, worker on sewing Machine	10 months
	Tractor and car driver. mechanic	2 years
	Book-keeper, agricultural production	10 months
	Fitter of electrical systems in the agricultural field; driver	3 years
	Technician, mechanic	3 years
	Senior in agricultural production	10 months
	Senior in agricultural production	3 years 6 months
	Technician, electrician	3 years 6 months
	Senior in agricultural prod. (farmer)	2 years
63. Bazar-Korgon, Jalal-Abad oblast	Seamstress, worker on sewing Machine	10 months
	Pastry -maker	2 years
	Senior in agricultural production	10 months
	Senior in agricultural prod. (farmer)	2 years
64. Katta-Taldyk, Osh oblast	Tailor	2 years
	Tractor and car driver. mechanic	2 years
	Mechanic in the field of cattle-breeding	2 years
	Salesman of food and other goods	10 months
65. Pakhtachi, Osh oblast	Book-keeper, agricultural production	10 months
	Senior in agricultural production	3 years
	Seamstress, tailor	2 years
	Salesman of food and goods, with SME skills	2 years
	Senior in agricultural prod. (farmer)	2 years
66. Shamaldy-Saj, Jalal-Abad oblast	Driver; mechanic (automotive)	10 months
	Tractor and car driver. mechanic	2 years
	Driver; welder (gas and electricity)	2 years /
	Senior in agricultural production	10 months
	Seamstress, tailor	2 years

67. Gulcha, Osh oblast	Tractor and car driver; mechanic	2 years
	Master of folk handicraft	10 months
	Master of folk handicrafts	2 years
	Senior in agricultural production	2 years
68. Aral, Jalal-Abad oblast	Carpenter	2 years
	Welder (gas and electricity)	10 months
	Carpenter. driver	10 months
	Senior in agricultural prod. (farmer)	2 years
	Seamstress, worker on sewing Machine	2 years
69. Karavan, Jalal-Abad oblast	Seamstress, atelier owner	2 years
	Tractor and car driver. mechanic	2 years
	Book-keeper, agricultural production	10 months
	Senior in agricultural production	10 months
70. Osh	Crane operator	10 months
	Carpenter	2 years
	Cook, national cuisine with SME skills	10 months
	Bricklayer, concrete worker. welder	2 years
	Crane operator	2 years
	Stucco worker. tiler of mosaics	2 years
	Welder (electricity, by hand)	2 years
	Cook, national cuisine, restaurant owner	2 years
71. Kok-Yangak, Jalal-Abad oblast	Electrician/mechanic	3 years. 6 months
	Senior in agricultural production	3 years
	Business-man	1 year 6 months
	Business-man	3 years
	Technician/mechanic	2 years 6 months
	Seamstress, tailor	2 years
	Book-keeper	4 years
	Mining electrician/mechanic	4 years
	Seamstress/Technician	2 years 6 months
	Seamstress/Technician	2 years 6 months
	Expert in goods	2 years 6 months
	Expert in goods	2 years 6 months
72. Sovetsky, Osh oblast	Welder (gas and electricity); driver	2 years
	Seamstress, tailor	2 years
	Master of wood-carving	2 years
	Carpenter. driver	10 months
73. Sulyutka, Osh oblast	Operator of mining machines	3 years 6 months
	Electrician/mechanic (underground works)	10 months
	Electrician/mechanic(underground works) operator	3 years 6 months
	Seamstress, worker on sewing Machine	10 months
	Seamstress, tailor	2 years
74. Closed down .		
75. Jalal-Abad	Carpenter	2 years
	Cook - pastry-maker	10 months
	Cook, national cuisine, restaurant owner	2 years
	Book-keeper, industrial production	2 years
	Carpenter. driver	10 months
	Bricklayer, concrete worker, welder	2 years

76. Mailuu-Suu, Jalal-Abad oblast	Checker/ controller of instruments	2 years
	Fitter of installations with vacuum	10 months
	Cook, pastry-maker	1 year 8.5 months
	Seamstress, tailor	2 years
	Fitter of sanitary systems; gas welder	2 years
	Seamstress, worker on sewing Machine	2 years
	Controller of technical equipment	2 years
	Machine operator, CNC operator	2 years
	Fitter of installations with vacuum	2 years
77. Kochkor-Ata, Jalal-Abad oblast	Driver; mechanic (automotive)	10 months
	Borer for bigger repairs	10 months
	Seamstress, worker on sewing Machine	10 months
	Book-keeper, agricultural production	10 months
	Welder (gas and electricity)	10 months
78. Closed down.		
79. Closed down		
80. Mayak, Issyk-Kul oblast	Cook, national cuisine, restaurant owner	2 years
	Tractor and car driver. mechanic	2 years
	Book-keeper, agricultural production	10 months
	Tractor and car driver (categories B, C)	10 months
81. Bokonbaevo, Issyk-Kul oblast	Seamstress, national clothing	2 years
	Seamstress, national clothing	2 years
	Book-keeper, agricultural production	3 years
	Senior in agricultural production	3 years
	Business-man	3 years
	Mechanic/Technician	3 years
	Cook, national cuisine with SME skills	10 months
82. Ananjevo, Issyk-Kul oblast agricultural production	10 months	Book-keeper,
	Senior in agricultural production	10 months
	Cook, national cuisine with SME skills	10 months
	Master of folk handicraft	10 months
	Master of folk handicraft	2 years
	Senior in agricultural prod. (farmer)	2 years
83. Closed down		
84. Closed down		
85. Kosh-Kol, Issyk-Kul oblast	Driver	5 months
	Cook; national cuisine	8.5 months
	Cook; pastry-maker	1 year 8.5 months
	Tractor and car driver. mechanic	2 years
86. Kulanak, Naryn oblast	Senior in agricultural production	10 months
	Senior in agricultural prod. (farmer)	2 years
	Seamstress, worker on sewing Machine	2 years -

87.Naryn	Bricklayer. concrete worker. welder	10 months
	Fitter of sanitary system; welder	2 years
	Carpenter	2 years
	Fitter of sanitary systems	10 months
	Secretary. typist	10 months
	Bricklayer. concrete worker. welder	2 years
	Cook; national cuisine; restaurant owner	2 years
'88.	Not financed by budget	
89 Kara-Kul, Jalal-Abad oblast	Welder (gas and electricity)	10 months
	Cook; national cuisine with SME skills	10 months
	Bricklayer; concrete worker	1 year 6 months
	Book-keeper, industrial production	10 months
	Book-keeper, industrial production	2 years
	Computer operator	2 years
90. Talas	Seamstress, worker on sewing Machine	10 months
	Tailor	2 years
	Welder (gas and electricity)	10 months
	Welder (gas and electricity); driver	2 years
	Book-keeper, agricultural production	2 years
	Classificator of leather and wool	2 years
91. Bishkek	Cook; national and foreign cuisine	1 year 8.5 months
	Pastry-maker with SME skills	1 year 8.5 months
	Cook; owner of own business	1 year 8 months
	Cook; pastry-maker. waiter	2 years 10 months
	Cook; pastry-maker; waiter. SME skills	2 years 10 months
92. Bishkek	Seamstress; national clothing	2 years
	Embroiderer	2 years
	Artist in wood-carving	2 years
	Artist in leather material	2 years
	Artist in wooden material	2 years
93. Bishkek	Mechanic ; maintenance of radio and television equipment	10 months
	Fitter of electronical instruments	10 months
	Secretary with PC skills	10 months
	Technician; maintenance of computers office equipment	10 months
	Mechanic; maintenance of electronic household Machines	10 months
	Mechanic; maintenance of electronic medical equipment	10 months
	Book-keeper, industrial production	10 months
94. Bishkek	Mechanic; maintenance of radio and television equipment	2 years
	Repair-man of analogue and digital clocks and watches	10 months
	Seamstress, worker on sewing Machine	10 months
	Tailor. atelier owner	2 years
	Hairdresser	1 year 6 months
	Mechanic; maintenance of complicated electronical techniques	10 months

95. Bishkek	Tailor. atelier owner	2 years
96. Merged with School No 3		
97. Bishkek	(also called "Railway school No 3")	
	Train hostess; cashier	10 months
	Duty officer on railway	3 years
	Duty on railway station	10 months
	Driver of electrical train	1 year 6 months
	Assistant driver of electrical train	3 years
98. Bishkek	Fitter of cables and electrical equipment	10 months
	Communication operator	10 months
	Radio operator. Controller of hydrological instruments	1 year
	Telegraph operator	10 months
	Telephone operator, inter-urban calls	10 months
99. Bishkek	Welder (gas and electricity); controller of welding works	3 years
	Machine operator. CNC operator	3 years
	Manager	3 years
	Small business entrepreneur	3 years
	Small business entrepreneur	10 months
100 . Bishkek Mechanic (automotive)		10 months
	Fitter. welder (gas and electricity)	10 months
	Fitter of electrical installations ; welder	2 years
	Fitter of electrical installations: welder	10 months
	Mechanic; maintenance of complicated electronical techniques	2 years
101. Closed down		
102. Kara-Balta, Chui oblast	Senior fruit and vegetable raiser	2 years
	Laboratory assistant; chemical and bacteriological analyses	10 months
	Welder (gas and electricity); driver	2 years
	Senior in agricultural production	10 months
	Senior in agricultural prod. (farmer)	2 years
	Seamstress, worker on sewing Machine	2 years
	Tailor	10 months
103. Buruldaj, Chui oblast	Carpenter	2 years
	Tailor	2 years
	Senior fruit and vegetable raiser	2 years
	Tractor and car driver. mechanic	2 years
	Carpenter, driver	10 months
	Senior in agricultural prod. (farmer)	2 years
	Tailor	10 months
	Cook, national cuisine, restaurant owner	2 years
104. Kara-Jigach, Chui oblast	Seamstress, worker on sewing Machine	10 months
	Salesman of food and other goods	10 months
	Salesman of food and goods; SME skills	2 years
	Senior in agricultural prod. (farmer)	2 years

105. Kara-Balta, Chui oblast	Mechanic	10 months
	Cook, national cuisine, restaurant owner	1 year
	Cook, national cuisine, restaurant owner	2 years
	Salesman of food and goods; SME skills	10 months
	Cook; waiter; barman	3 years -
	Fitter of electrical installations; mechanic	3 years
106. Shopokov Chui oblast	Driver. mechanic (automotive)	10 months
	Driver	5 months
	Cook, national cuisine, restaurant owner	10 months
	Driver. welder (gas and electricity)	2 years
	Fitter. maintenance of electrical equipm.	2 years
	Welder (gas and electricity)	2 years
	Cook, national cuisine, restaurant owner	2 years
107.	Closed down	
108. Shamaldy-Saj, Jalal-Abad oblast	Tractor and car driver. mechanic	2 years
	Welder (gas and electricity)	10 months
	Fitter of rural electrical installations; driver	10 months .
	Book-keeper, agricultural production	2 years
	Salesman of goods; driver	10 months
	Salesman of food and goods; SME skills	2 years
	Senior in Agricultural prod. (farmer)	2 years
	Book-keeper s industrial production	10 months
	Seamstress, worker on sewing Machine	2 years
109. Kyzyl-Jar, Osh oblast	Tractor and car driver. mechanic	2 years
	Master of folk handicraft	10 months
	Senior in agricultural prod. (farmer)	2 years
110. -Saj, Talas oblast	Tractor and car driver. mechanic	2 years
	Classificator of leather and wool; driver	10 months
	Master of folk handicraft	10 months
	Master of folk handicraft	2 years
	Senior in agricultural prod. (farmer)	2 years
111. Tash-Kumyr, Jalal-Abad oblast	Manufacturer of semiconductor material	10 months
	Cook; national cuisine with SME skills	10 months
	Seamstress, tailor	2 years
	Mechanic (electrical). welder (electrical)	2 years
	Book-keeper, industrial production	2 years
	Welder (gas and electricity)	2 years
	Mechanic; Repair-man	2 years
112.	Closed down	
113.Osh	Controller/Cashier. goods selling	10 months
	Controller/Cashier. food selling	10 months
	Cook; pastry-maker with SME skills	1 year 8.5 months
	Book-keeper, industrial production	10 months
"Female Lyceum", Bishkek	Seamstress	3 years 6 months
	Master of folk handicraft	3 years 6 months

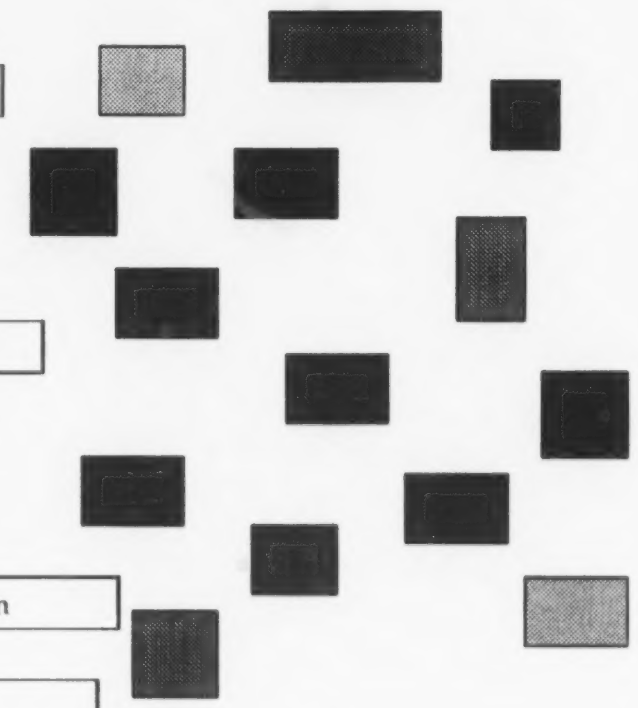
Annex III: List Of Institutions By The Ministry Of Education Providing Technical And/or Vocational Education And Training At Secondary Level - Special Secondary Education.

1. Bishkek Polytechnic Technicum.
2. Bishkek Architecture - Construction College.
3. Bishkek Roads College.
4. Bishkek Pedagogical College.
5. Bishkek Commercial College.
6. Bishkek Technical College.
7. Bishkek Financial - Economic Technicum.
8. Bishkek Aviation - Technical School.
9. Bishkek Art School.
10. Bishkek Music School.
11. Bishkek Choreography School.
12. Bishkek Evening Technicum of Light Industry.
13. Bishkek Instrument Construction Technicum.
14. Bishkek School of O1ympic Reserves.
15. Kara-Baltinsk Technicum of Food Industry.
16. Tokmak Industrial - Pedagogical Technicum.
17. Issyk-Kul Industrial Technicum.
18. Kara-Kul Pedagogical School.
19. Narynsk Pedagogical School.
20. Osh Pedagogical School.
21. Jalal-Abad Pedagogical School.
22. Osh Construction School.
23. Osh Technological School.
24. Osh Technicum of Trade.
25. Komsko-tinsk Technicum of Electronic Industry.
26. Maluu-Suusk Electric-Mechanical Technicum.
27. Kyzyl-Keysk Mining Technicum.
28. Bishkek Republican Medical School.
29. Kara-Baltinsk Medical School. -
30. Tokmak Medical School.
31. Na Medical School.
32. Maluu-Suusk Medical School.
33. Osh Medical School.

34. Kara-Kol Medical School.
35. Jalal-Abad Medical School.
36. Kyzyl-Keysk Medical School.
37. Talassk Medical School.
38. Bishkek Agricultural Technicum.
39. Issyk-Kul State Collective Farm Technicum.
40. Osh Agricultural-Technicum.
41. Na Agricultural Technicum.
42. Jalal-Abad Zoo-Veterinary Technicum.
43. Talassk Technological Technicum.
44. Tokmak Technicum of Automation and Electrification of Agriculture.
45. Tokmak School of Cultural Education.
46. Jalal-Abad Technicum of Culture.
47. Osh Music School.
48. Kara-Kol Music School.

Annex IV The poly-modular approach to teaching

	STEP I	STEP II	STEP III
TIME →			
AGRICULTURE	Kyrgyz/Russian Mathematics Geography Biology	Mechanics Cattle breeding Cultivation of crops	
INDUSTRY	Kyrgyz/Russian Mathematics Physics Chemistry	Welding Fitting Milling Steering	
SERVICE	Kyrgyz/Russian Foreign Lang. Mathematics Psychology	Tourism Gastronomy Transport Insurance	
BUSINESS/ADMIN	Kyrgyz/Russian Foreign languages Mathematics Economics	Personnel administration Bookkeeping Legal basis Office management	



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